ORDER NO. SD83062525C8

Service Manual

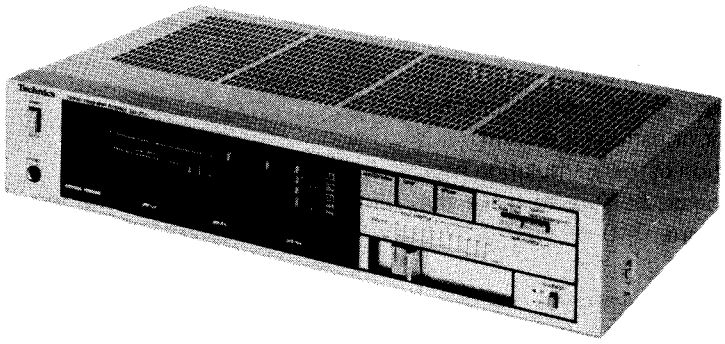
Stereo Integrated DC Amplifier

SU-Z55

[E], [EGA], [EK], [EF], [EH], [EB], [Ei], [XA], [XL], [PC]

SU-Z55(K)

[E], [EGA], [EK], [EH], [EB], [XA], [PC]



* The colors of this model include silver and black.
* The black type model is provided with (K) in the Service Manual.

Areas

* [E] is available in Switzerland and Scandinavia.
* [EGA] is available in F. R. Germany.
* [EK] is available in United Kingdom.
* [EF] is available in France.
* [EH] is available in Holland.
* [EB] is available in Belgium.
* [Ei] is available in Italy.
* [XA] is available in Southeast Asia, Oceania, Africa, Middle Near East and Central South America.
* [XL] is available in Australia.
* [PC] is available in European Audio Club.

Specifications (Specifications are subject to change without notice for further improvement.)

(DIN 45 500)

■ AMPLIFIER SECTION

40 Hz~20 kHz continuous power output	
both channels driven	2 × 45W (4Ω) 2 × 40W (8Ω)
1 kHz continuous power output	
both channels driven	2 × 50W (4Ω) 2 × 42W (8Ω)
Total harmonic distortion	
rated power at 40 Hz~20 kHz	0.05% (4Ω) 0.03% (8Ω)
rated power at 1 kHz	0.05% (4Ω) 0.03% (8Ω)
half power at 40 Hz~20 kHz	0.05% (4Ω) 0.03% (8Ω)
half power at 1 kHz	0.007% (4Ω) 0.005% (8Ω)
−26 dB power at 1 kHz	0.01% (4Ω)
50 mW power at 1 kHz	0.01% (4Ω)
Intermodulation distortion	
rated power at 250 Hz: 8 kHz=4:1, 4Ω	0.05%
rated power at 60 Hz: 7 kHz=4:1, SMPTE, 8Ω	0.03%
Power bandwidth	
both channels driven, −3 dB	10 Hz~25 kHz (4Ω) 10 Hz~25 kHz (8Ω)
Residual hum and noise	0.8 mV
Damping factor	20 (4Ω), 40 (8Ω)
Input sensitivity and impedance	
PHONO	2.5 mV/47kΩ
TUNER, AUX/CD/VIDEO, TAPE 1, 2	150 mV/22kΩ
PHONO maximum input voltage (1 kHz, RMS)	150 mV
Frequency response	
PHONO	RIAA standard curve ±0.8 dB (30 Hz~15 kHz)
TUNER, AUX/CD/VIDEO, TAPE 1, 2	10 Hz~80 kHz (−3 dB)
S/N	
rated power (4Ω)	
PHONO	75 dB (IHF, A: 81 dB)
TUNER, AUX/CD/VIDEO, TAPE 1, 2	86 dB (IHF, A: 97 dB)
−26 dB power (4Ω)	
PHONO	65 dB
TUNER, AUX/CD/VIDEO, TAPE 1, 2	65 dB
50 mW power (4Ω)	
PHONO	62 dB
TUNER, AUX/CD/VIDEO, TAPE 1, 2	62 dB
Tone controls	
BASS	50 Hz, +10 dB~ −10 dB
TREBLE	20 kHz, +10 dB~ −10 dB
Loudness control (volume at −30 dB)	50 Hz, +9 dB
Output voltage and impedance	
REC OUT	150 mV
Channel balance, AUX/CD/VIDEO 250 Hz~6,300 Hz	±1 dB
Channel separation, AUX/CD/VIDEO 1 kHz	50 dB
Headphones output level and impedance	420 mV/330Ω
Load impedance	
MAIN or REMOTE	8Ω~16Ω
MAIN and REMOTE	4Ω~16Ω

■ GENERAL

Power consumption	310W
Power supply	
For United Kingdom and Australia	AC 50 Hz/60 Hz, 240V
For continental Europe	AC 50 Hz/60 Hz, 220V
For others	AC 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensions (W×H×D)	430 × 86 × 240 mm (16-15/16" × 3-3/8" × 9-7/16")
Weight	5.1 kg

Note:
Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

SU-Z55

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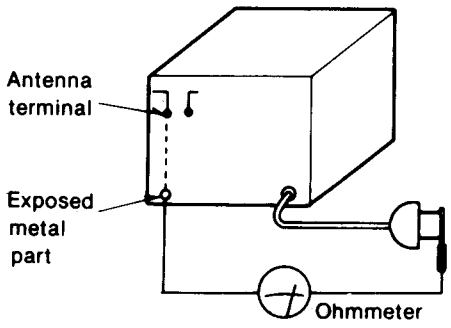
■ SAFETY PRECAUTIONS

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

• INSULATION RESISTANCE TEST

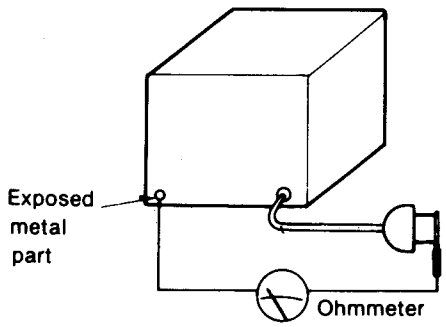
1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between 3MΩ and 5.2MΩ to all exposed parts. (Fig. A) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. B)

Note: Some exposed parts may be isolated from the chassis by design. These will read infinity.



(Fig. A)

Resistance = 3MΩ—5.2MΩ



(Fig. B)

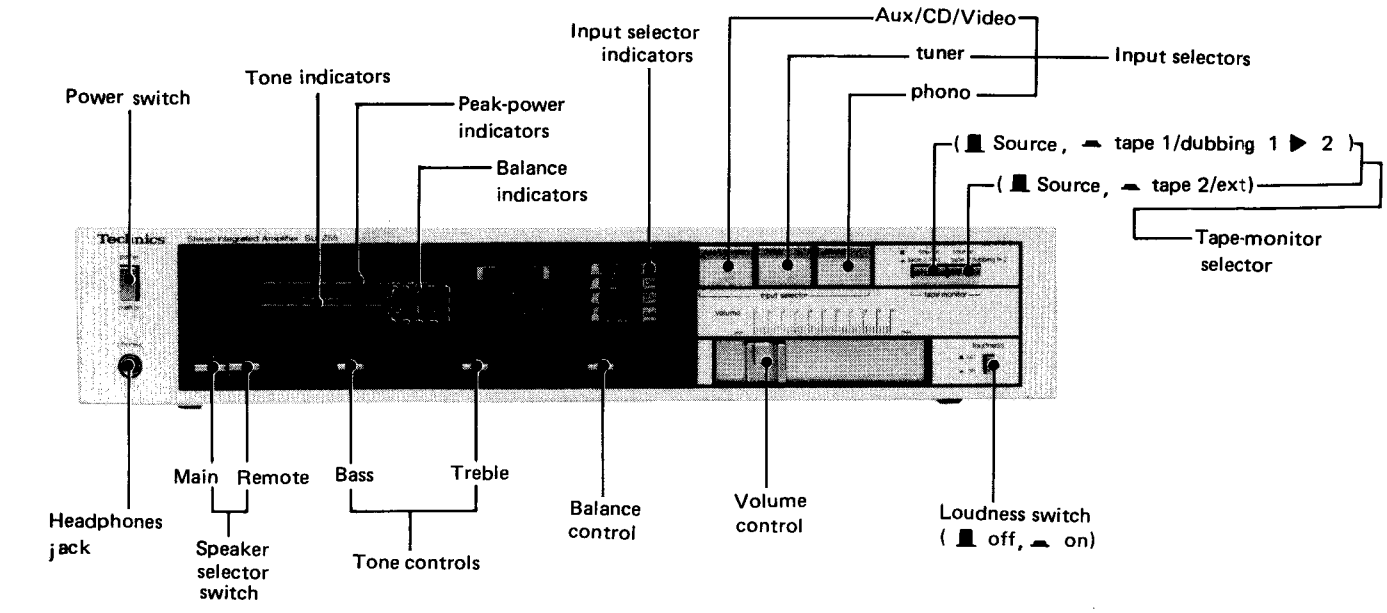
Resistance = Approx ∞

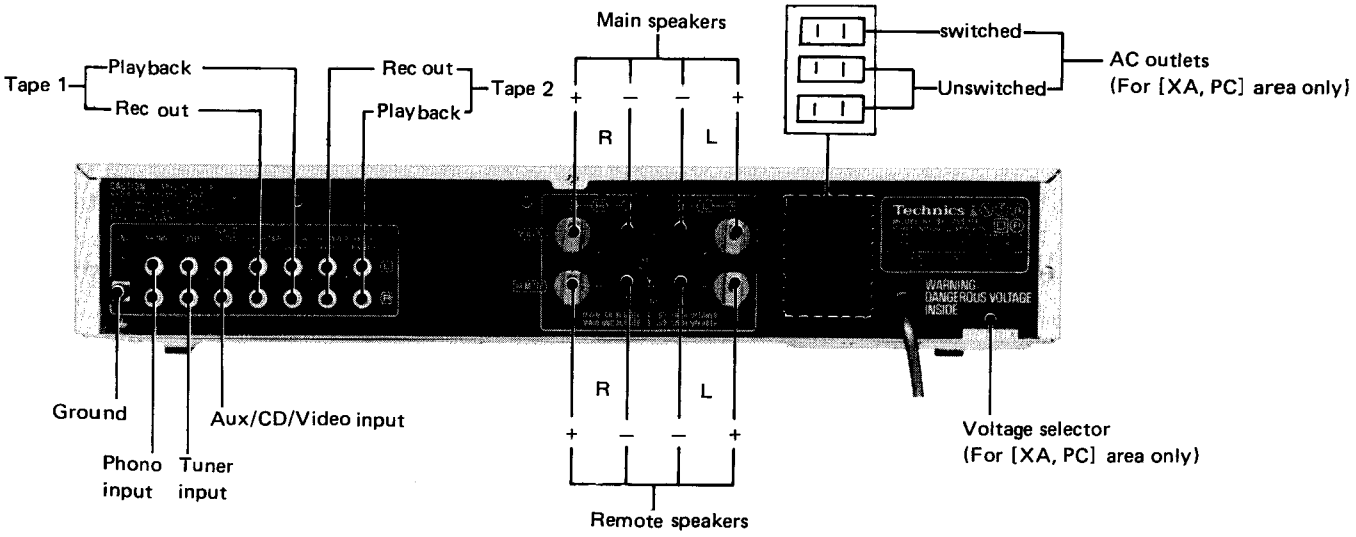
4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

■ BEFORE REPAIR AND ADJUSTMENT

1. Turn off the power supply and short-circuit of power supply capacitors (C406, 6800μF and C407, 6800μF) at resistance (about 10Ω, 5W) in order to discharge the charged voltage. Do not short between C406 and C407 by screwdriver. It may damage the componet.
2. Before turning on the power supply after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current is free of abnormality. The consumed current at 60Hz/50Hz in no signal mode is shown below with respect to supply voltage 110V/120V/220V/240V.

Power supply voltage		AC110V	AC120V	AC220V	AC240V
Cousumed current	50 Hz	200 ~ 400mA	180 ~ 355mA	100 ~ 200mA	90 ~ 180mA
	60 Hz	185 ~ 370mA	160 ~ 320mA	95 ~ 190mA	85 ~ 165mA





- The power supply for this unit varies depending upon the areas. Also, the parts used for power supply are different. So, refer to the ciucuit diagram and the replacement parts list.

* [XA, PC] area is provided with voltage selector and AC outlet.
* 240V (ro/60Hz) for Australia and United Kingdom.
* 220V (50/60Hz) for Continental Europe.
* 110V/120V/220V/240V (50/60Hz for other [XA, PC] area.
* Phono input capacitance is about 150pF.

■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

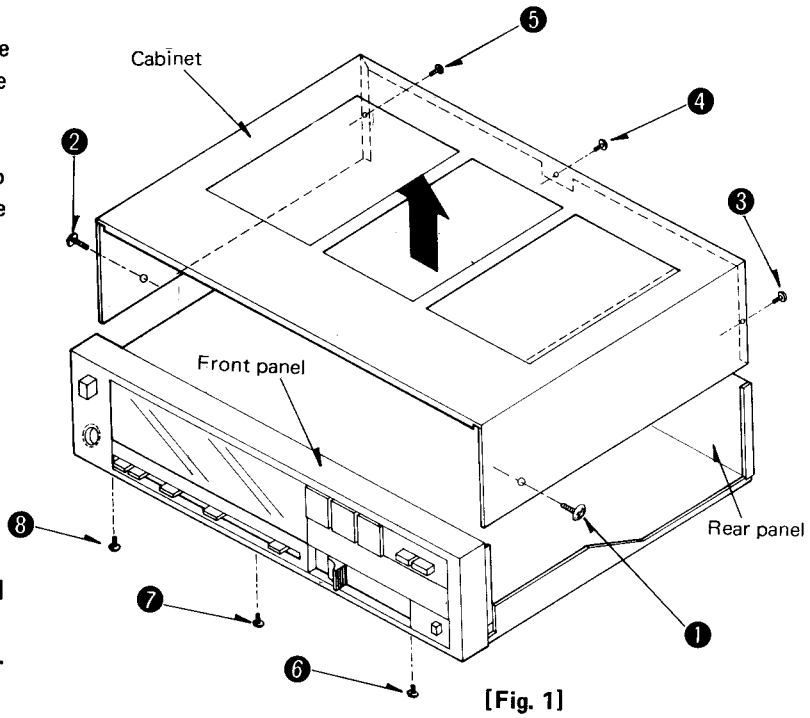
If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note
When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

■ DISASSEMBLY INSTRUCTIONS

- **How to remove the cabinet and front panel.**
  1. Remove the 2 setscrews [Fig. 1: ❶, ❷] on the side and 3 setscrews [Fig. 1: ❸ ~ ❺] on the rear panel of the cabinet.
  2. Remove the cabinet upward.
  3. Remove the 3 setscrews [Fig. 1: ❻ ~ ❽] to remove the front panel in the direction of the arrow.



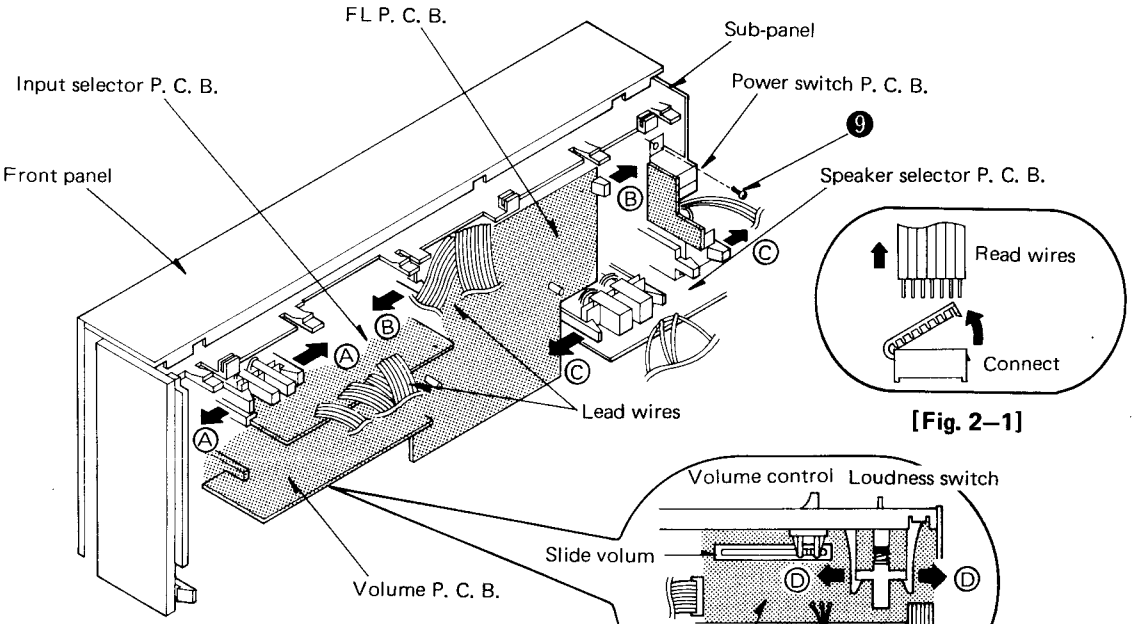
[Fig. 1]

- **How to remove each switch P. C. B. attached to the front panel. [Fig. 2]**
  Pull out the lead wires connected from main P. C. B. to input selector and FL P. C. B. [See Fig. 2–1.]

1. Remove the cabinet and front panel. [See Fig. 1.]
2. To remove the input selector P. C. B., release the claw in the direction of arrow Ⓐ, and pull out the P. C. B. toward th back of front panel.
3. To remove the FL P. C. B., release the claw in the direction of arrow Ⓑ, and pull out the P. C. B. toward the back of front panel.
4. To remove the power switch P. C. B., remove setscrew ❾.

Note: [XA], [PC] area only
To remove the front panel, remove the 2 setscrews. (Refer to EXPLODED VIEW on page 17)

5. To remove the speaker selector P. C. B., release the claw in the direction of arrow Ⓒ, and pull out the P. C. B. toward the back of front panel.
6. To remove the volume P. C. B., release the claw in the direction of arrow Ⓓ, and pull out the P. C. B. toward the back of front panel.

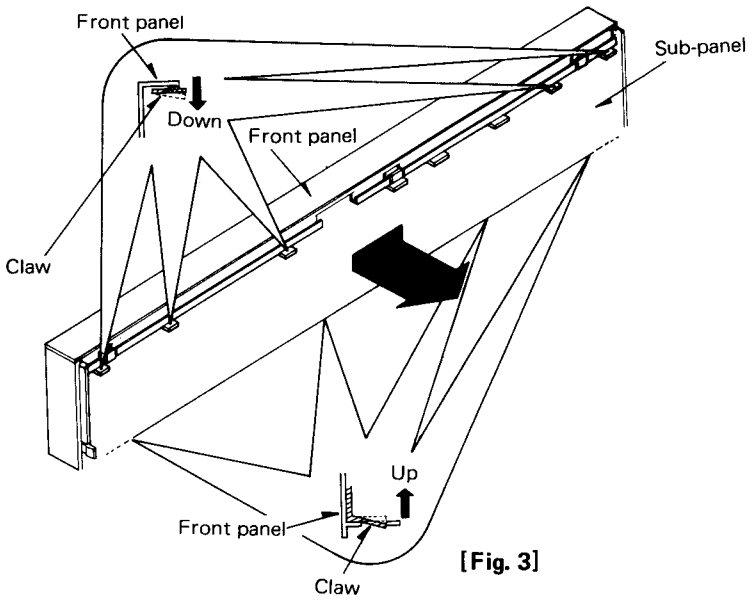


[Fig. 2]

[Fig. 2–1]

[Fig. 2–2]

- **How to remove the front panel and sub-panel [Fig. 3]**
  1. Remove the cabinet and front panel. [See Fig. 1]
  2. Remove each switch P. C. B. attached to the front panel. [See Fig. 2]
  3. Release the 5 claws at the top and the 4 claws at the down of the sub panel, and then remove the front panel asland as in Fig. 3.

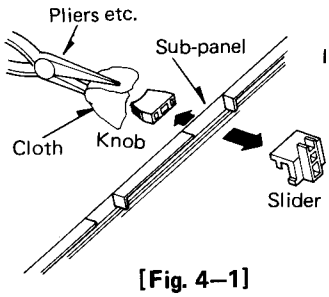


[Fig. 3]

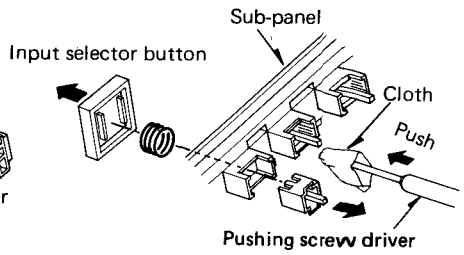
- **How to remove the bass, treble and balance control buttons**
  1. Remove the front panel and sub-panel. [See Fig. 3]
  2. Shift the slide knob to the left-hand end, then remove it by using the pliers etc. wrapped with cloth. [Fig. 4–1]

- **How to remove the 3 input selector knobs**
  1. Remove the front panel and sub-panel. [See Fig. 3]
  2. Remove the 3 knobs by pushing then from inside the sub-panel by using of a screwdriver or the like. [Fig. 4–2]

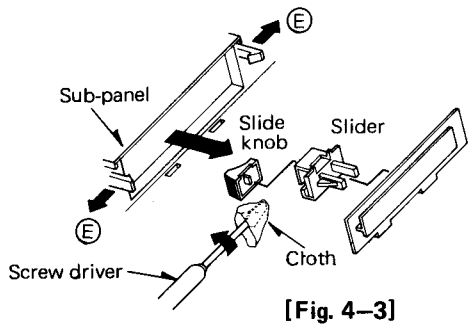
- **How to remove the volume control button**
  1. Remove the front panel and sub-panel. [See Fig. 3]
  2. Release the sub-panel claw in the direction of arrow Ⓔ, and pull it out toward the back of sub-panel. Remove it by using a blade screw driver wrapped with cloth. [Fig. 4–3]



[Fig. 4–1]



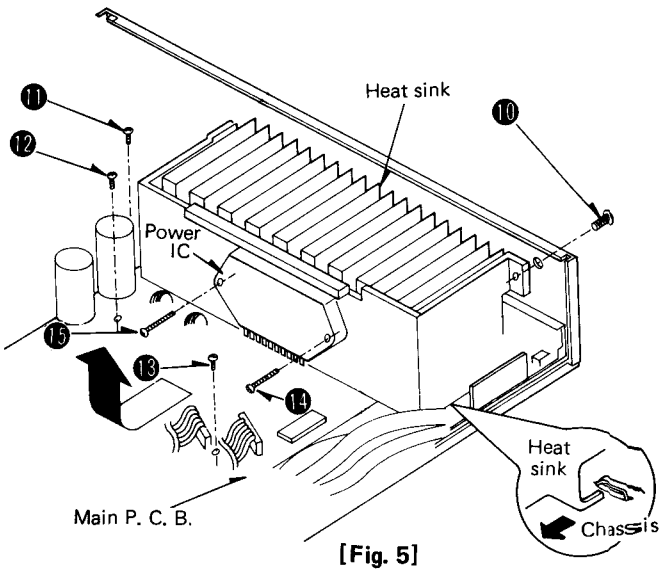
[Fig. 4–2]



[Fig. 4–3]

- **How to remove the power amplifier IC [Fig. 5]**
  1. Remove the 4 set screwes [Fig. 5: ⑩ ~ ⑬] on the chassis and then remove the main P. C. B. with heat sink from the chassies.
  2. Un solder of power IC.
  3. Remove the 2 set screwes [Fig. 5: ⑭ , ⑮] used to secure the power IC on the heat sink, and then pall the power IC.

Note: When mounting the power IC, apply silicone compound or equivalent heat diffuser to the rear side of power IC, and then follow the step 1 ~ 3 reversely.



[Fig. 5]

■ RESISTORS & CAPACITORS

Notes: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
3. The "Ⓢ" mark is service standard parts and may differ from production parts.
4. The unit of resistance is Ω(ohm), K = 1000Ω, M = 1000kΩ.
5. The unit of capacitance is μF (microfarad). P = 10^{-6} μF
6. Bracketed indications in Ref. No. Columns specify the area. Parts without these indications can be used for all areas.

Resistor Type	Wattage	Tolerance
ERD : Carbon	10 : 1/8W	G : ±2%
ERG : Metal Oxide	25 : 1/4W	J : ±5%
	1 : 1W	
	2 : 2W	
	3 : 3W	
	S1 : 1/2W	

ERD10TLJ□□□ → Chip type carbon
ERO10MKG□□□ → Chip type metal film

Capacitor Type	Voltage		Tolerance
	ECEA Type	Others	
ECEA : Electrolytic	1A : 10V	1H : 50V	C : ±0.25pF
ECCD : Ceramic	1C : 16V	1C : 16V	D : ±0.5pF
ECKD : Ceramic	1E : 25V	KC : 400V AC	M : ±20%
ECQM : Polyester	1H : 50V	1 : 100V	J : ±5%
ECET : Electrolytic	1J : 63V	45 : 45V DC	K : ±10%
ECQE : Polyester	1V : 35V	2H : 500V DC	Z : +80%, −20%
	50 : 50V	2A : 250V AC	N : ±30%
	25 : 25V		P : +100%, −0%

ERD	25	F	J	101
Type	Wattage	Shape	Tolerance	Valve

ERG	2	AN	J	2R2
Type	Wattage	Shape	Tolerance	Valve

ECKD	1H	102	Z	F	ECEA
Type	Voltage	Value	Tolerance	Peculiarity	Type

50	M	R47	R
Voltage	Peculiarity	Value	Special use

Ref. No.	Part No.	Description
RESISTERS		
R1,2	ERD10TLJ391U	390
R3,4	ER010MKG2213	221k
R5,6	ER010MKG5622	56.2k
R7,8	ERD10TLJ271U	270
R9,10	ERD10TLJ680U	68
R11,12	ERD10TLJ184U	180k
R13,14	ERD10TLJ123U	12k
R15,16	ERD10TLJ563U	56k
R17,18	ERD10TLJ102U	1k
R101,102 Ⓢ (EGA)only	ERD25FJ391	390
R103~112 Ⓢ (EGA)only	ERD25FJ222	2.2k
R201,202 Ⓢ (EGA)only	ERD25FJ272	2.7k
R201,202 Ⓢ (other)	ERD25FJ472	4.7k
R203,204 Ⓢ	ERD25TJ183	18k
R205,206 Ⓢ	ERD25TJ393	39k
R207,208 Ⓢ	ERD25TJ223	22k
R209,210 Ⓢ	ERD25FJ332	3.3k
R211,212 Ⓢ	ERD25TJ184	180k
R213,214 Ⓢ	ERD25FJ562	5.6k
R215,216 Ⓢ	ERD25FJ102	1k
R301,302 Ⓢ	ERD25TJ223	22k
R303,304 Ⓢ	ERD25FJ122	1.2k
R305,306 Ⓢ	ERD25FJ102	1k
R307,308 Ⓢ	ERD25TJ124	120k
R309,310 Ⓢ	ERD25TJ393	39k
R311,312 Ⓢ	ERD25TJ823	82k
R313,314 Ⓢ	ERD25FJ471	470
R315,316 Ⓢ	ERD25FJ150	15
R317,318 Ⓢ	ERD25FJ332	3.3k
R319,320 Ⓢ	ERD25FJ272	2.7k
R321,322 ⚠Ⓢ	ERD25FJ100	10
R323,324 Ⓢ	ERG1ANJ331	330
R401 Ⓢ	ERD25TJ333	33k

Ref. No.	Part No.	Description
RESISTERS		
R402 Ⓢ	ERD25TJ153	15k
R403 ⚠	ERD2FCG331	330
R404 Ⓢ	ERD25TJ393	39k
R405 ⚠	ERDS1FJ471	470
R406 ⚠	ERDS1FJ271	270
R407 Ⓢ	ERD25FJ472	4.7k
R408 Ⓢ	ERG1ANJ122	1.2k
R409 ⚠	ERDS1FJ220	--
R410 ⚠	ERDS1FJ331	330
R412 Ⓢ	ERD25TJ153	15k
R418 Ⓢ	ERD25FJ103	10k
R419 ⚠	ERD2FCG470	47
R501,502 Ⓢ	ERD25TJ123	12k
R503,504 Ⓢ	ERD25FJ221	220
R505,506 Ⓢ	ERD25TJ393	39k
R508,509 Ⓢ	ERD25FJ103	10k
CAPACITORS		
C1,2 Ⓢ	ECEA1HS3R3S	3.3
C3,4 Ⓢ	ECCD1H101k	100p
C5,6 Ⓢ	ECKD1H471KB	470p
C7,8	ECQM1H223KV	0.022
C9,10	ECQM1H682KV	0.0068
C11,12 ⚠	ECEA1HN010S	1
C13,14 Ⓢ	ECEA1CS330	33
C101,102 Ⓢ (EGA)only	ECCD1H180K	18p
C103~110 Ⓢ (EGA)only	ECCD1H101K	100p
C201,202 Ⓢ	ECKD1H221KB	220p
C203,204	ECQM1H563KV	0.056
C205,206	ECQM1H153KV	0.015
C207,208	ECQM1H823KV	0.082
C209,210	ECQM1H182KV	0.0018
C211,212	ECQM1H183KV	0.018
C301,302 Ⓢ	ECEA50Z3R3	3.3

Ref. No.	Part No.	Description
CAPACITORS		
C303,304 Ⓢ	ECEA1HS100	10
C305,306 Ⓢ	ECCD1H101K	100p
C307,308 Ⓢ	ECCD1H820K	82p
C309,310 Ⓢ	ECKD1H681KB	680p
C311,312 Ⓢ	ECCD1H050CC	5p
C313,314 Ⓢ	ECCD1H100KC	10p
C315,316 Ⓢ	ECCD1H820K	82p
C317,318 Ⓢ	ECCD1H820K	82p
C319,320 Ⓢ	ECEA50Z4R7	4.7
C321,322 Ⓢ	ECEA50Z1	1
C323,324 Ⓢ	ECKD1H223ZF	0.022
C325,326 Ⓢ (EGA)only	ECKD1H103ZF	0.01
C327,328 Ⓢ (EGA)only	ECKD1H103ZF	0.01
C329,330 Ⓢ	ECEA1ES220	22
C331,332 ⚠	ECEA1EN3R3S	3.3
C350 Ⓢ	ECEA50Z1	1
C401 Ⓢ	ECEA25Z4R7	4.7
C402 Ⓢ	ECEA50Z3R3	3.3
C403 Ⓢ	ECEA1AS470	47
C404 Ⓢ	ECEA1HS100	10
C405 Ⓢ	ECEA1ES470	47
C406,407	ECETS45V682U	6800
C408 Ⓢ	ECEA50Z1	1
C409,410 Ⓢ	ECEA1VS330	33
C411 Ⓢ	ECEA50Z1	1
C413 Ⓢ	ECEA25Z4R7	4.7
C414 ⚠ (EGA)only	ECQE1104KN	1
C501,502 Ⓢ	ECEA25Z4R7	4.7
C503 Ⓢ	ECEA1ES470	47
C601 ⚠	ECKDKC103PF	0.01
C602 ⚠ (XA, PC)only	ECKDKC103PF	0.01
C603 ⚠ (EGA, EF)only	ECQE2A473MW	0.047

■ PRINTED CIRCUIT BOARDS

Ground (Earth) lines

K

AC LINE
AC 220V (50/60Hz)

N 15 — L 14 — J — F1 T1A 250V

T1 Power transformer

H Speaker terminal

SPEAKERS (RIGHT) (LEFT)

A Input / Output terminal

GROUND POINT — GND — PHONO — TUNER — AUX/CD VIDEO — TAPE 1 (REC OUT, PLAYBACK) — TAPE 2/EXT (REC OUT, PLAYBACK)

G Power amplifier, Muting and power supply

IC301 IC302 IC401 Q301 Q302 Q401 Q402 Q403 D404 D405 D406 D408 D407 Z401 L301 L302

B Equalizer

IC1

E

F Thermal detector

TH201

D FL level meter Tone control

IC501 IC502 VR201 VR202 VR203-1 VR203-2 VR204-1 VR204-2 VR205 VR206

BALANCE — TREBLE — BASS

J

S5 — POWER

I Speaker switch

S4-2 (REMOTE) S4-1 (MAIN) — SPEAKERS SELECTOR — PHONES

C Selector switch

S2-1 (tape 1) S2-2 (tape 2) — TAPE MONITOR

S1-1 (phono) S1-2 (tuner) S1-3 (aux/CD/VIDEO) — INPUT SELECTOR

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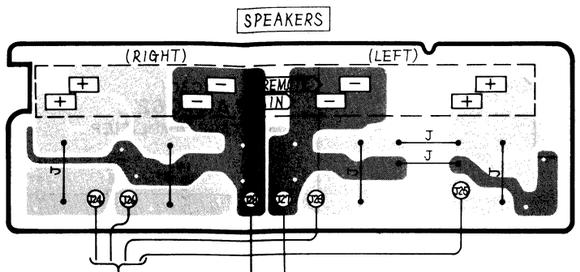
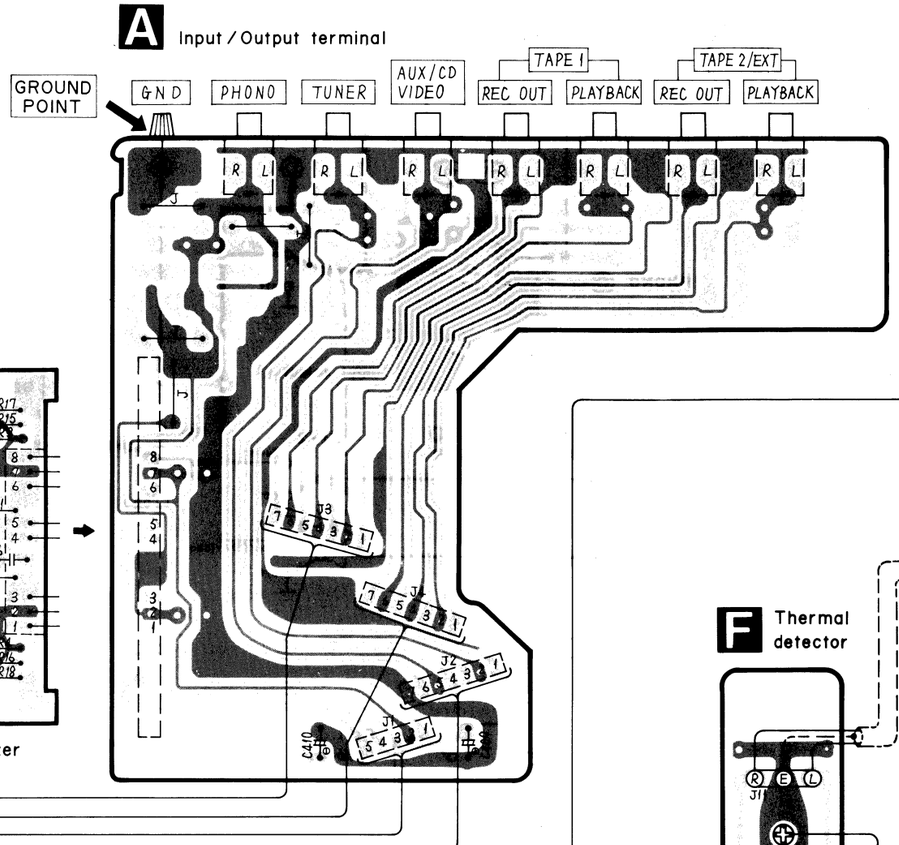
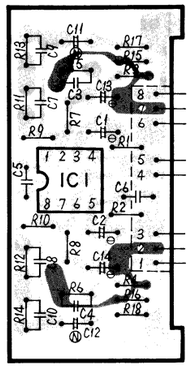
H Speaker terminal



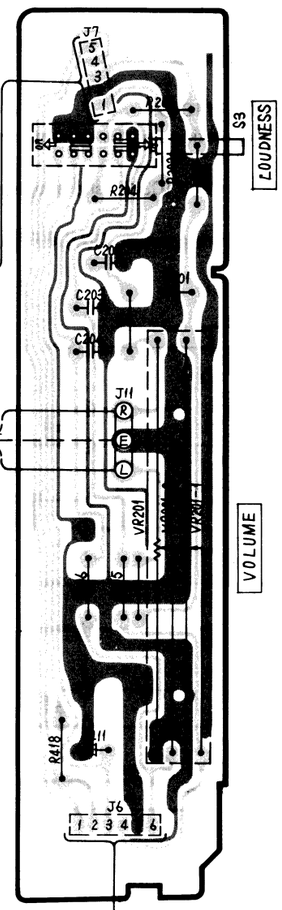
A Input / Output terminal



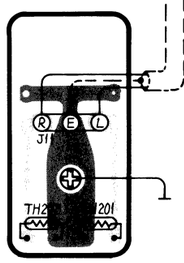
B Equalizer



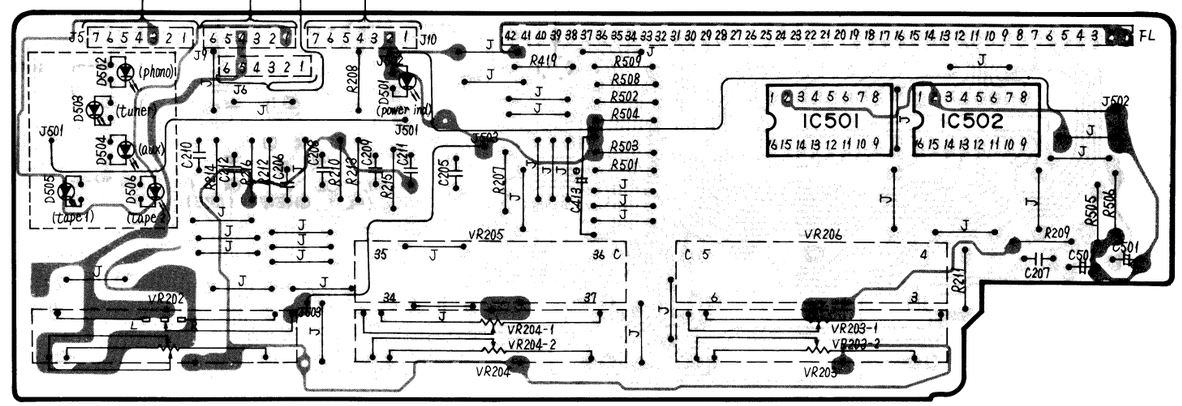
E Volume control

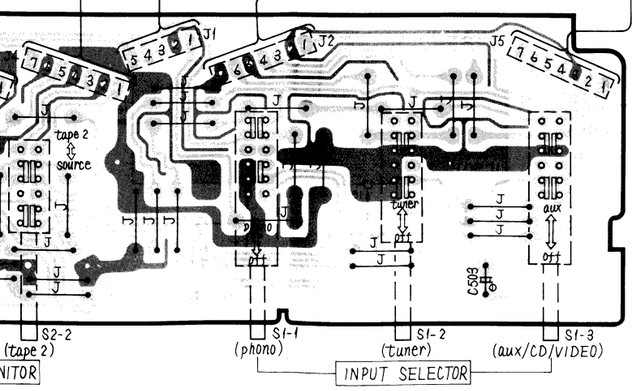


F Thermal detector



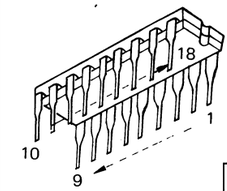
D FL level meter Tone control



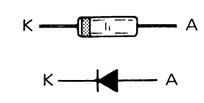


switch

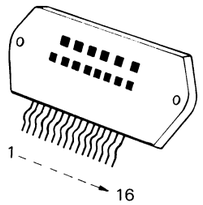
- **Terminal guide of transistors, diodes and IC's**



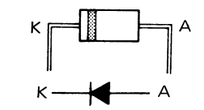
AN7062	18 pin
SVIBA6148	16 pin
SVINJM2043DD	8 pin



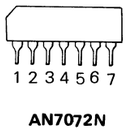
MA150
MA162A



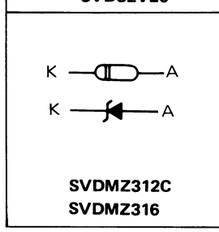
SVISTK2038B



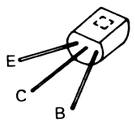
SVDS2V20



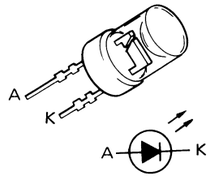
AN7072N



SVDMZ312C
SVDMZ316



2SA992
2SA1015
2SD592ANC

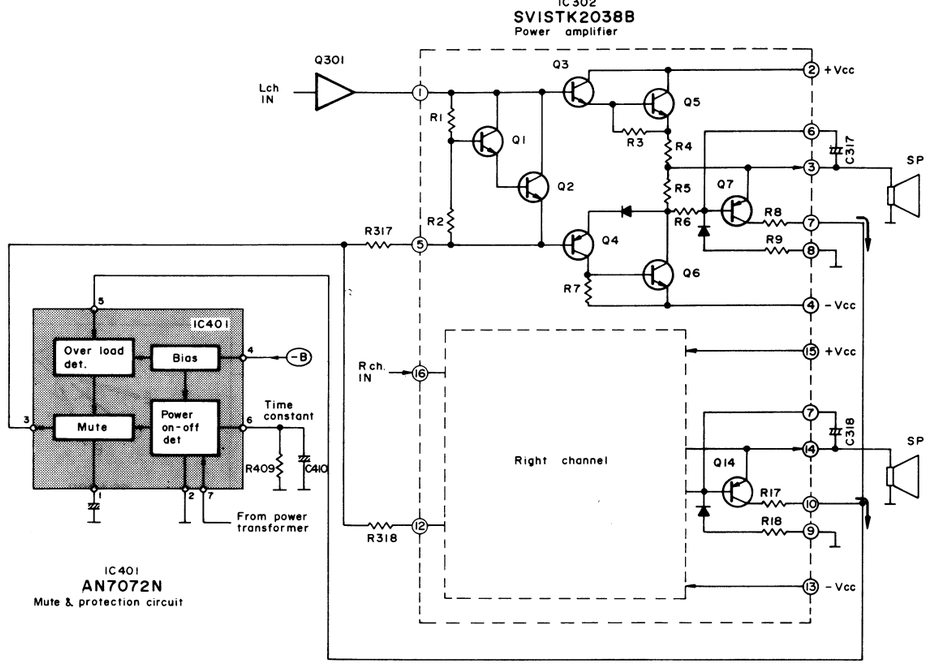


SVDSLV56VC3
SVDSLV56YC3

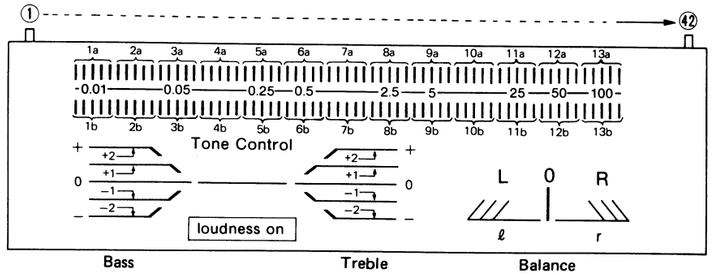
■ POWER AMPLIFIER PROTECTION

- **Short-circuit of speaker terminals**
  1. If speaker terminals are short-circuited, a high level current will flow to power amplifiers. Q5 and Q6, causing the voltage across emitter resistor R5 to increase.
  2. Voltage across R5 causes overload detecting transistor Q7 to turn ON.
  3. Emitter voltage of Q7 (ground potential) goes to terminal (7) of IC302 through R8.
  4. Voltage at terminal (7) is transmitted to terminal (5) of muting IC (IC407).
  5. Calculation circuit of IC407 operates to eliminate the voltage at terminal (3) of IC407.
  6. On operation of muting circuit of IC301, the drive circuit of IC302 stops operating and the current from power amplifier also stops.

Note: 1. Terminal (3) of IC407 supplies power to drive circuit of power amplifeir IC302, and supplies control voltage to muting circuit of voltage amplifier IC301.
2. IC407 is provided with muting function to prevent shock noise during power ON/OFF in addition to power amplifier protection.



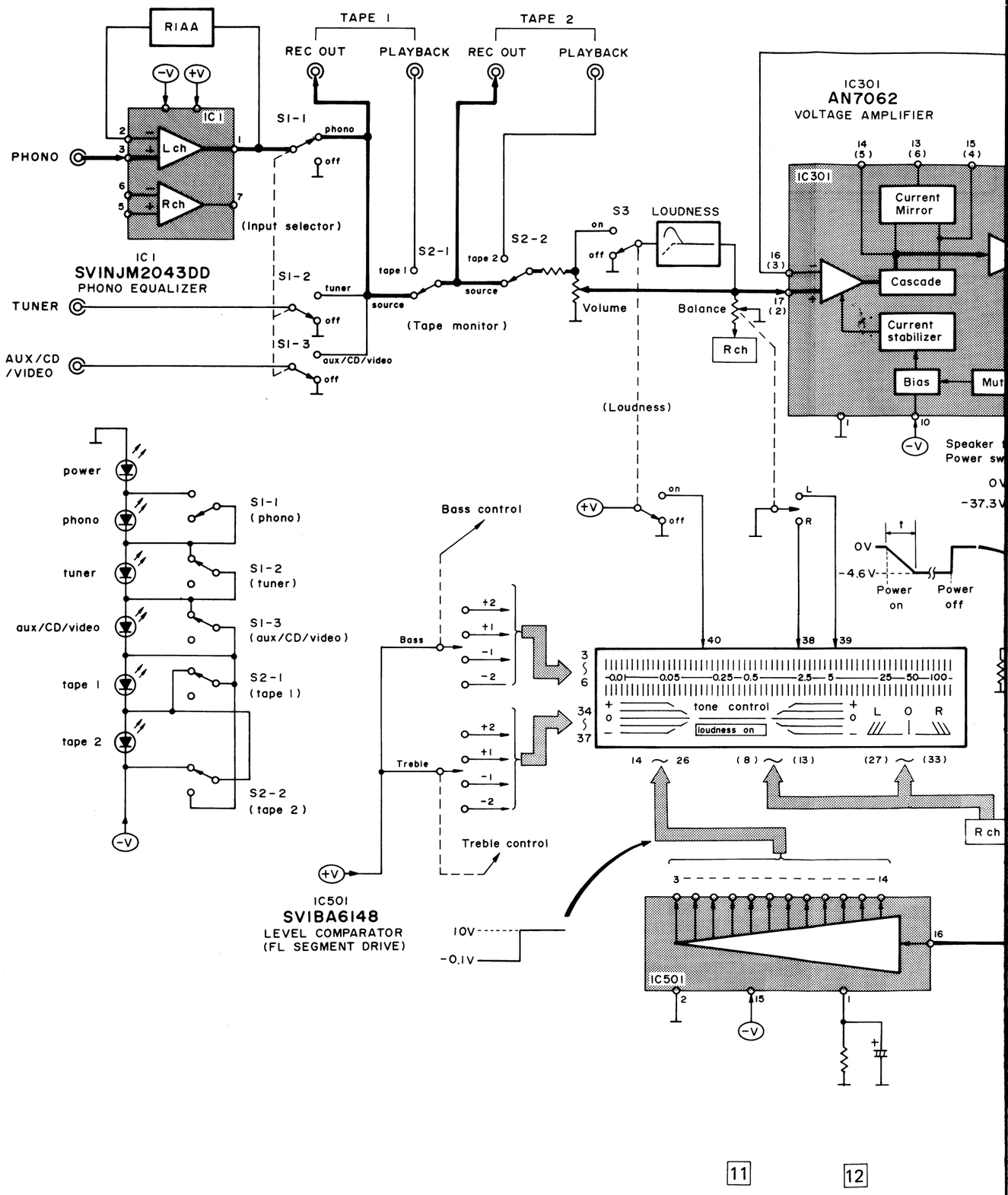
■ FLUORESCENT LEVEL METER



PIN No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
CONNECTION	F	F	−2	−1	+1	+2	G	6b	5b	4b	3b	2b	1b	6a	5a	4a	3a	2a	1a	13a	12a
			Bass																		
PIN No.	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
CONNECTION	11a	10a	9a	8a	7a	13b	12b	11b	10b	9b	8b	7b	+2	+1	−1	−2	r	ℓ	loudness	F	F
													Treble								

1a ~ 12a ..... L ch segment 1b ~ 12b..... R ch segment r ..... balance (R) ℓ ..... balance (L) F ..... filament

■ BLOCK DIAGRAM



nd Q6, causing

nt from power

upplies control

FF in addition

c

SP

c

c

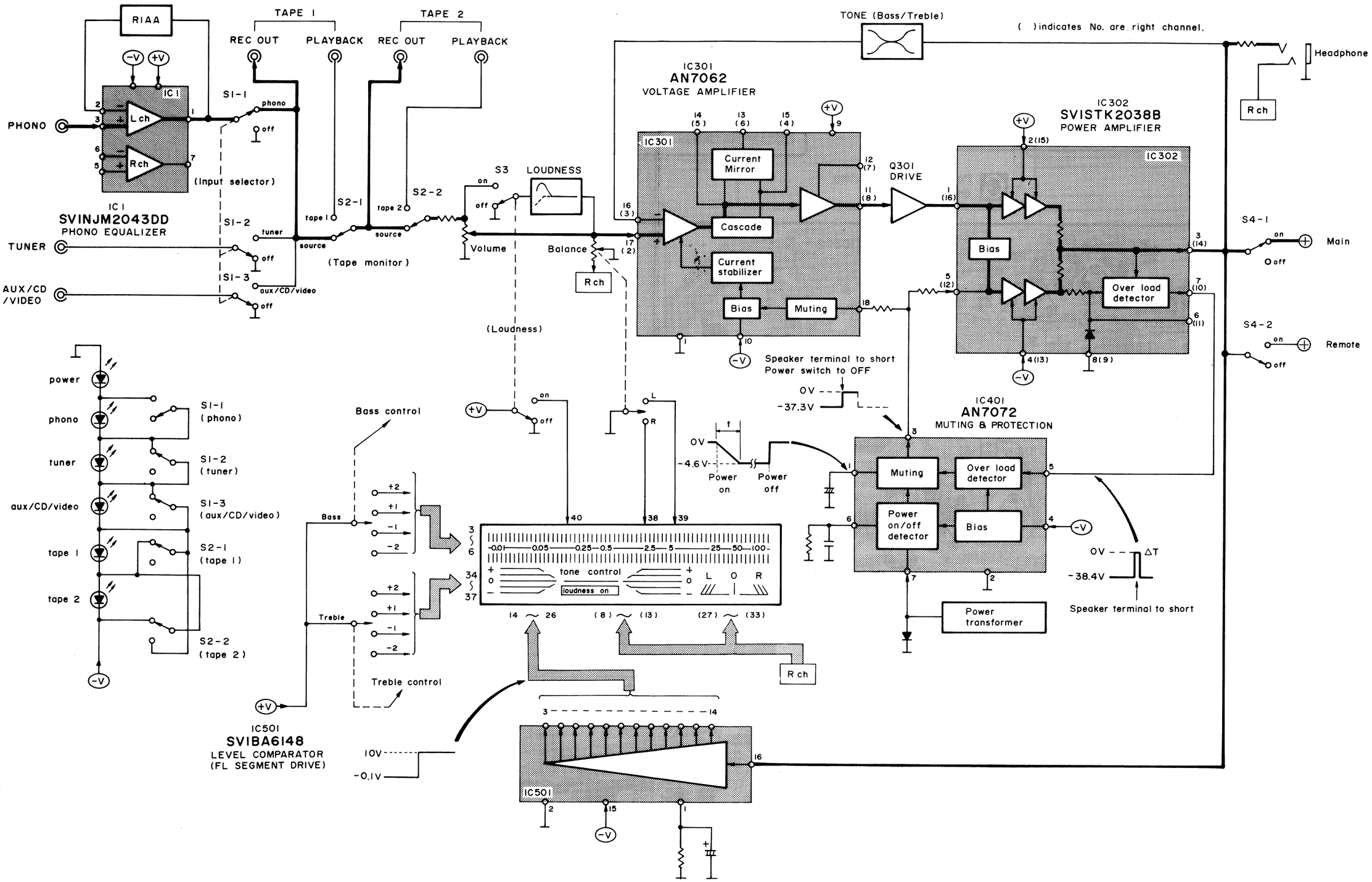
c

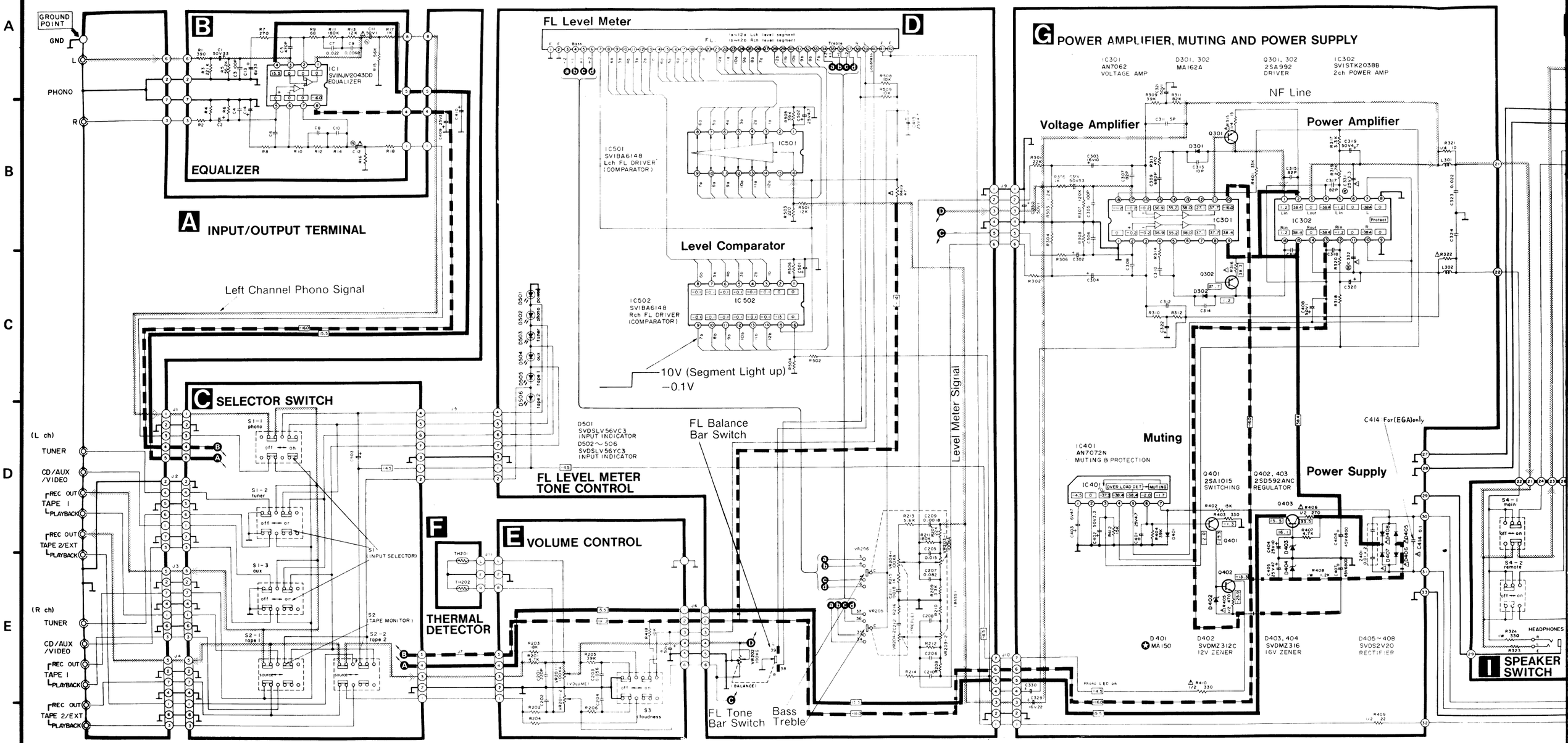
SP

c

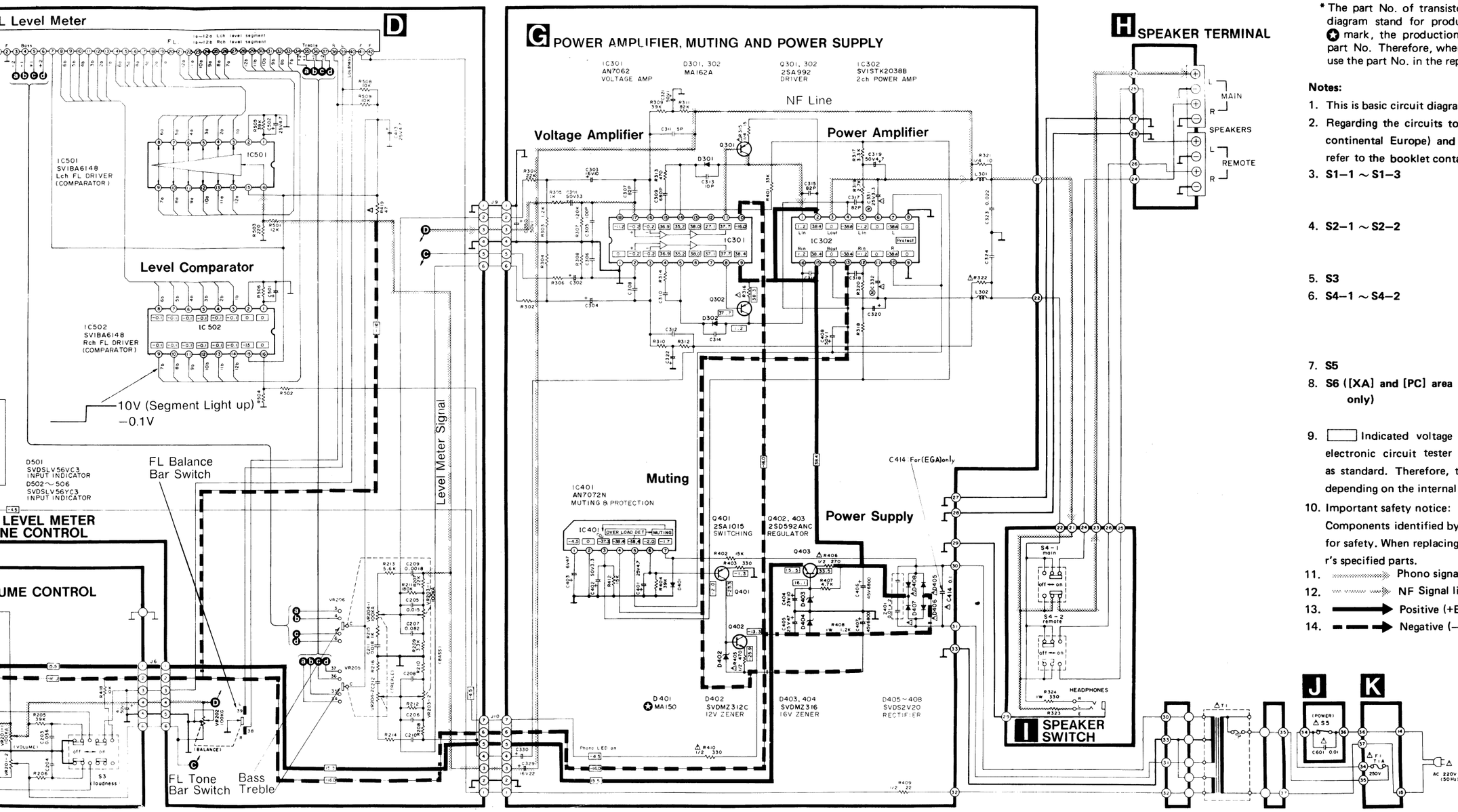
..... filament

■ BLOCK DIAGRAM




GROUND POINT
GND
L
PHONO
R
B
EQUALIZER
IC1
SVINJM2043DD
EQUALIZER
A INPUT/OUTPUT TERMINAL
Left Channel Phono Signal
C SELECTOR SWITCH
(L ch)
TUNER
CD/AUX /VIDEO
REC OUT TAPE 1 PLAYBACK
REC OUT TAPE 2/EXT PLAYBACK
(R ch)
TUNER
CD/AUX /VIDEO
REC OUT TAPE 1 PLAYBACK
REC OUT TAPE 2/EXT PLAYBACK
S1 (INPUT SELECTOR)
S2 (TAPE MONITOR)
S1-1 phono
S1-2 tuner
S1-3 aux
S2-1 tape 1
S2-2 tape 2
F
TH201
TH202
THERMAL DETECTOR
E VOLUME CONTROL
S3 loudness
FL Level Meter
D
IC501
SVIBA6148
Lch FL DRIVER (COMPARATOR)
IC502
SVIBA6148
Rch FL DRIVER (COMPARATOR)
Level Comparator
10V (Segment Light up)
−0.1V
D501
SVD5LV56VC3
INPUT INDICATOR
D502～506
SVD5LV56YC3
INPUT INDICATOR
FL LEVEL METER TONE CONTROL
FL Balance Bar Switch
FL Tone Bar Switch
Bass
Treble
Level Meter Signal
G POWER AMPLIFIER, MUTING AND POWER SUPPLY
IC301
AN7062
VOLTAGE AMP
D301, 302
MA162A
Q301, 302
2SA992
DRIVER
IC302
SVI5TK2038B
2ch POWER AMP
NF Line
Voltage Amplifier
Power Amplifier
IC301
IC302
Q301
Q302
D301
D302
Muting
IC401
AN7072N
MUTING & PROTECTION
Q401
2SA1015
SWITCHING
Q402, 403
2SD592ANC
REGULATOR
Power Supply
D401
MA150
D402
SVDMZ312C
12V ZENER
D403, 404
SVDMZ316
16V ZENER
D405～408
SVD52V20
RECTIFIER
C414 For (EGA) only
HEADPHONES
I SPEAKER SWITCH

4 5 6 7 8 9 10 11



13 14 15

■ SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology.)

* The part No. of transistors, IC and diodes mentioned in the schematic diagram stand for production part No. Regarding the part No. with ✪ mark, the production part No. are different from the replacement part No. Therefore, when placing an order for replacement part, please use the part No. in the replacement parts list.

Notes:

1. This is basic circuit diagram (For continental Europe) of this unit.
2. Regarding the circuits to be changed in the basic circuit diagram (For continental Europe) and related areas ([EGA], [XL], [XA]) and [PC] refer to the booklet contain manual (Order No. SD83062525C8–A).
3. **S1–1 ～ S1–3** : Input selector switch in **"phono"** position. (S1–1 : phono, S1–2 : tuner, S1–3 : Aux/CD/Video)
4. **S2–1 ～ S2–2** : Tape-monitor selector switch in **"source"** position. (S2–1 : tape 1, S2–2 : tape 2)
5. **S3** : Loudness switch in **"off"** position.
6. **S4–1 ～ S4–2** : Speaker switch (main) in **"on"** position. Speaker switch (remote) in **"off"** position. (S4–1 : main speaker, S4–2 : remote speaker).
7. **S5** : Power source switch in **"on"** position.
8. **S6 ([XA] and [PC] area only)** : Voltage selector switch in **"240V"** position. (Refer to booklet contain) 120V ↔ 110V ↔ 220V ↔ 240V
9. ☐ Indicated voltage values are the standard values for the DC electronic circuit tester (high impedance) with the ground point taken as standard. Therefore, there may exist some errors in the voltage volues, depending on the internal impedance of the DC circuit tester.
10. Important safety notice:
    Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
11. Phono signal lines of left channel.
12. NF Signal lines of left channel.
13. Positive (+B) voltage line.
14. Negative (−B) voltage line.

■ REPLACEMENT PARTS LIST

Notes: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. Ⓚ —marked parts are used for black only, while ○ —marked parts are for silver type only.
4. Part other than Ⓚ — and ○—marked are used for both black and silver type.
5. Bracketed indications in Ref. No. Columns specify the area. Parts without these indications can be used for all areas.
6. The "Ⓢ" mark is service standard parts and may differ from production parts.
7. The parenthesized numbers in the column of description stand for the quantity per set.

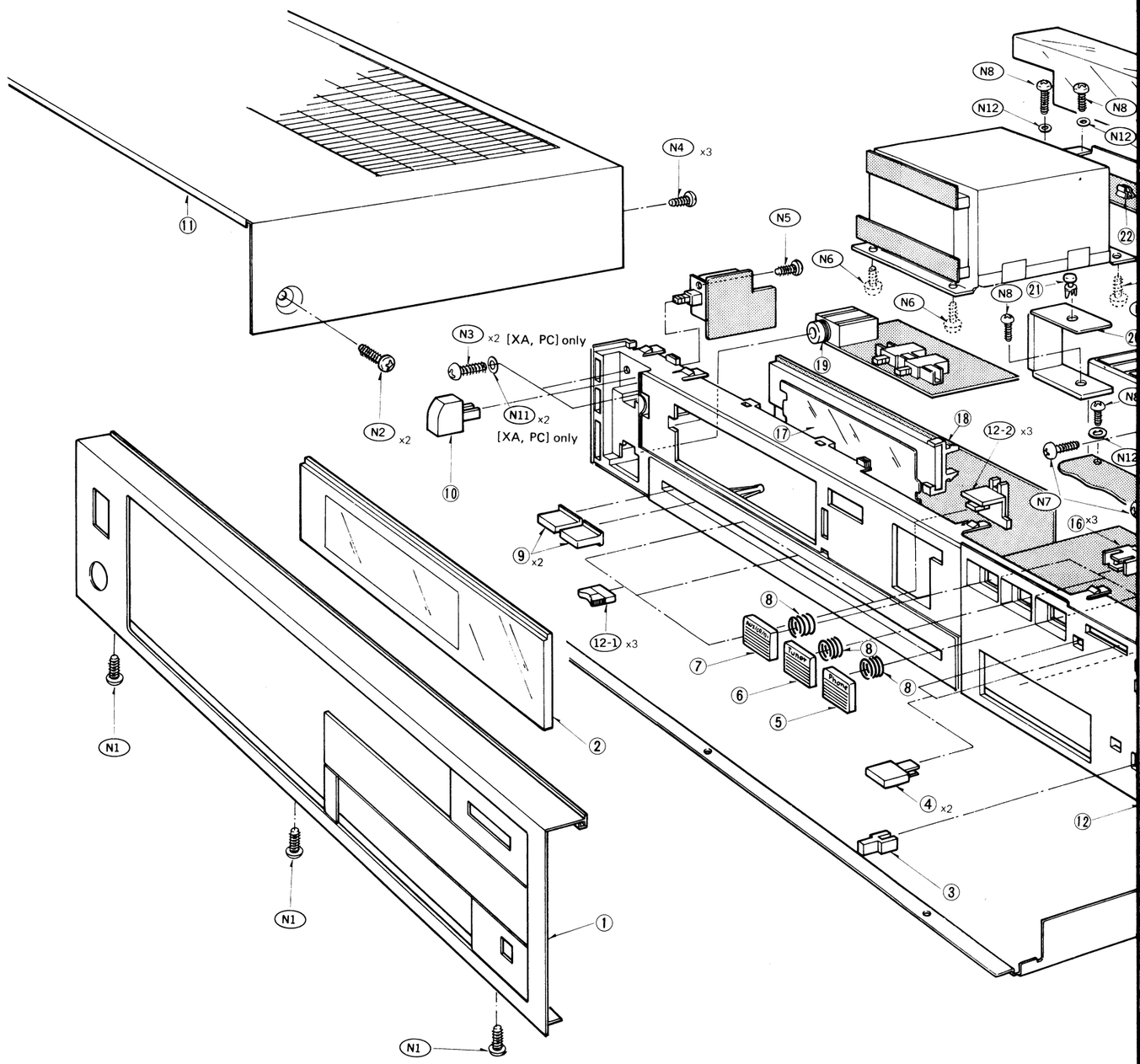
Black type model No. : SU–Z55(K)

Ref. No.	Part No.	Description
INTEGRATED CIRCUITS		
IC1	SVINJM2043DD	Equalizer
IC301	AN7062	Voltage Amp.
IC302	SVISTK2038B	Power Amp.
IC401	AN7072N	Muting
IC501, 502	SVIBA6148	Comparator
TRANSISTORS		
Q301, 302	2SA992	Driver
Q401	2SA1015–Y	Switching
Q402, 403	2SD592ANC–Q	Regulator
DIODES		
D301, 302, 401 Ⓢ	MA162A	Bias
D402	SVDMZ312C	12V Zener
D403, 404	SVDMZ316	16V Zener
D405~408 ⚠	SVDS2V20	Rectifier
D501	SVDSLV56VC3	LED, Power
D502~506	SVDSLV56YC3	LED, Selector
COILS		
L101~104 (EGA)only	ELQS181KB	Choke, Input
L301, 302	SLQY07G–30	Choke, Output
L601 ⚠ (EGA)only	SLQZ650MH49	Choke, AC Line
TRANSFORMER		
T1 ⚠ (XA, PC)only	SLT5M345	Power Source
T1 ⚠ (EK, XL)only	SLT5M343	Power Source
T1(other) ⚠	SLT5M341	Power Source
FUSES		
F1 ⚠	XBA2C10TR0	T1A, 250V
F2 ⚠ (XA, PC)only	XBA2C20TR0	T2A, 250V
VARIABLE RESISTORS		
VR201	EWF00105A15S	Volume, 100kΩ(A)
VR202	EWANA7X05G15	Balance, 100kΩ(G)
VR203, 204	EWANA6X05A15	Tone, 100kΩ(A)
VR205, 206	EWANA8X05240	FL Tone Switch
THERMISTERS		
TH201, 202	RRT104	10kΩ
COMPONENT COMBINATION		
Z401	SXRFS203ZSM	0.01(×2)
FLUORESCENT DISPLAY TUBE		
FL	SADBG190Z	Level Meter
SWITCHES		
S1	SSH3059	Input Select
S2	SSH2063	Tape Monitor
S3	SSH1119	Loudness
S4	SSH2065	Speaker
S5 ⚠ (XA, PC)only	ESB90227S	Power Source
S5(other) ⚠	SSH1071	Power Source
S6(XA)only ⚠	ESE37219	Voltage Select
CABINET and CHASSIS PARTS		
1 ○	SGWUZ55–SE	Front Panel (Silver) (1)
1 Ⓚ	SGWUZ55–KE	Front Panel (Black) (1)

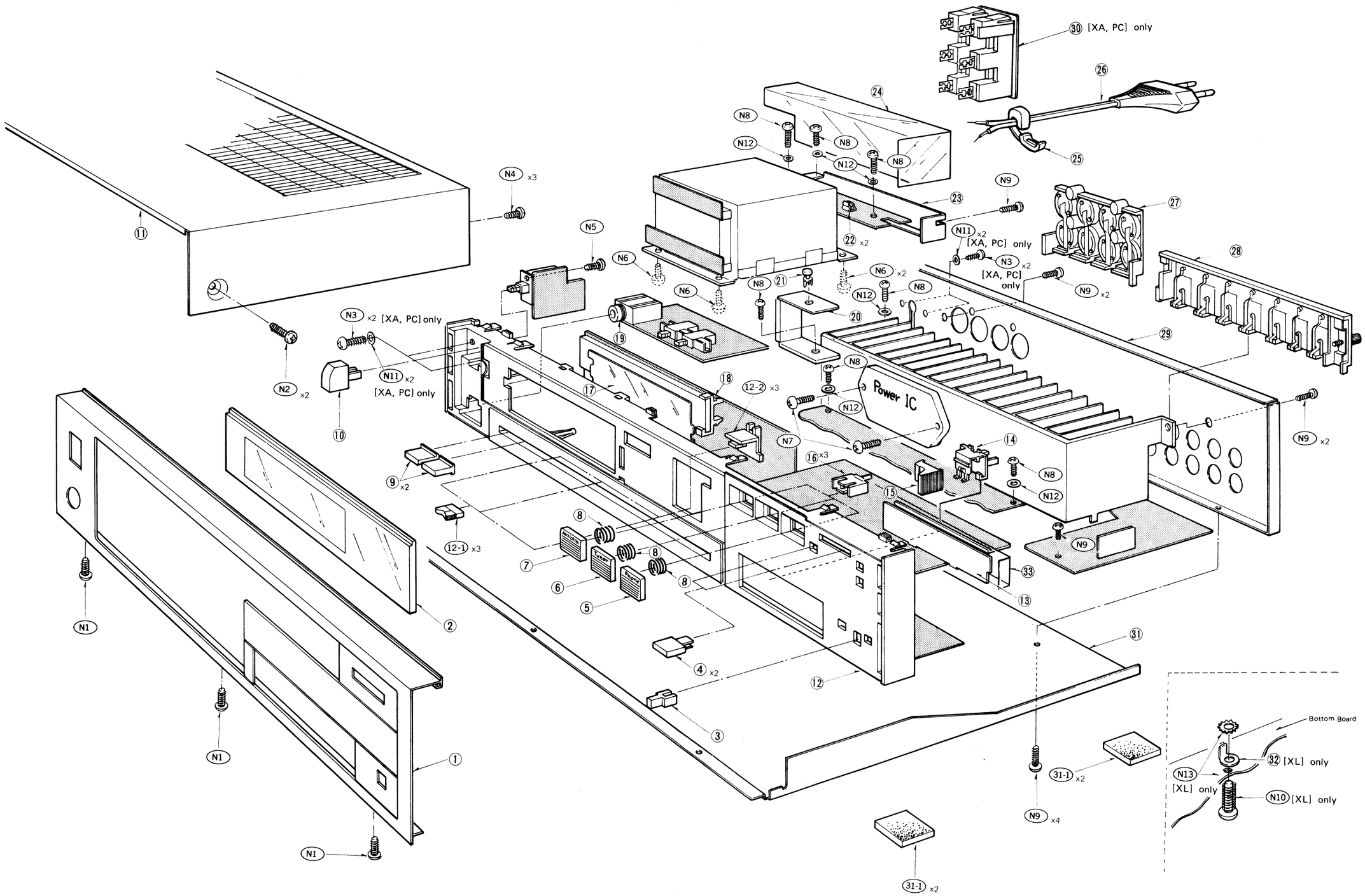
Ref. No.	Part No.	Description
CABINET and CHASSIS PARTS		
2	SGUUZ55–E	Transparent Cover (1)
3	SBC571	Button, Loundness (1)
4	SBC369–2	Button, Tape Selector (2)
5	SBW423	Button, Phono (1)
6	SBW423–1	Button, Tuner (1)
7	SBW423–2	Button, (1)
8	SUS191–2	Spring, Button (3)
9	SBC315–3	Button, Speaker Selector (2)
10	SBC337–1	Button, Power (1)
11 ○	SKC1550S1	Cabinet, (Silver) (1)
11 Ⓚ	SKC1550BB1	Cabinet, (Black) (1)
12 ○	SGXUZ55–SE	Front Sub Panel, Ass'y (Silver) (1)
12 Ⓚ	SGXUZ55–KE	Front Sub Panel, Ass'y (Black) (1)
12–1	SBD69–1	Knob (3)
12–2	SHR9673	Holder, (3)
13 ○	SGXUZ55–SE1	Ornament, Volume (Silver type) (1)
13 Ⓚ	SGXUZ55–KE1	Ornament, Volume (Black type) (1)
14	SHR9675	Holder, Volume Knob (1)
15	SBD83	Knob, Volume (1)
16	SHR9629	Holder, Input Selector Button (3)
17	SDU203	Filter, FL (1)
18	SHR9677	Holder, FL (1)
19	SJJ63B	Jack, Headphone (1)
20	SUW2115	Bracket (1)
21	SHR401–1	Lock Pin (1)
22	SJT347	Holder, Fuse (2)
23	SMK59	Bracket (1)
24(XA, PC) only	SMX801	Insulation Cover (1)
24(other)	SMX779	Insulation Cover (1)
25(XL)only	SHR131	Bushing, AC Cord (1)
25(EK)only	SHR129	Bushing, AC Cord (1)
25(other)	SHR127	Bushing, AC Cord (1)
26(XA, PC) only ⚠	SJA111	AC Cord (1)
26(XL)only Ⓢ⚠	QFC1207MA	AC Cord (1)
26(EK)only Ⓢ⚠	QFC1205M	AC Cord (1)
26(other) ⚠	SJA165	AC Cord (1)
27	SJF4815–2	Terminal Board (1)
28	SJF3059N	Terminal Board (1)
29(E)	SGP3791A	Rear Panel (1)
29(EGA)	SGP3791B	Rear Panel (1)
29(EK)	SGP3791C	Rear Panel (1)
29(XA, PC)	SGP3791–1A	Rear Panel (1)
29(XL)	SGP3791–2A	Rear Panel (1)
29(EF, EH, EB, Ei)	SGPUZ55–SE	Rear Panel (1)

Ref. No.	Part No.	Description
CABINET and CHASSIS PARTS		
30(XA, PC)only ⚠	SJS601–2	Socket, AC Outlet (1)
31(XA, PC) only	SKUUZ55–SX	Bottom Board Chassis (1)
31(other)	SKUUZ55–SE	Bottom Board Chassis (1)
31–1	(SHS2481	Foot (4)
32(XL)only	RJT202B	Terminal (1)
33	SMC1127	Shield Plate (1)
SCREWS		
N1 Ⓢ	XTB3+8BFN	Tapping, ⊕3×8 (3)
N2 ○	SNE2095–2	Tapping(Silver) (2)
N2 Ⓚ	SNE2095–3	Tapping(Black) (2)
N3(XA, PC) only Ⓢ	XSN3+6S	⊕3×6 (4)
N4	XTBS3+8BFZ1	Tapping with Detent, ⊕3×8 (3)
N5(Except(XA, PC)) Ⓢ	XTB3+8BFN	Tapping, ⊕3×8 (1)
N6 Ⓢ	XTB4+10BFN	Tapping, ⊕4×10(4)
N7 Ⓢ	XTB3+16BFN	Tapping, ⊕3×16(2)
N8 Ⓢ	XTB3+8BFN	Tapping, ⊕3×8 (7)
N9	XTBS3+8BFZ1	Tapping with Detent, ⊕3×8 (10)
N10(XL)only Ⓢ	XTN3+8B	Tapping, ⊕3×8 (1)
WASHERS		
N11(XA, PC) only Ⓢ	XWA3B	Spring, ϕ3 (4)
N12 Ⓢ	XWG3	Plain, ϕ3 (7)
N13(XL)only Ⓢ	XWC3B	External Tooted Lock, ϕ3 (2)
ACCESSORIES		
A1(XA, PC)only ⚠	SJP5213–1	Plug Adaptor (1)
A2(XA, PC)only ⚠	SJP5215	Plug Adaptor (1)
A3(E, EH, EB)	SQF11807	Instruction Book (1)
A3(EK)	SQF11809	Instruction Book (1)
A3(EGA)	SQF11811	Instruction Book (1)
A3(EF)	SQF11813	Instruction Book (1)
A3(EI)	SQF11815	Instruction Book (1)
A3(XA, PC)	SQF11817	Instruction Book (1)
A3(XL)	SQF11819	Instruction Book (1)
PACKING PARTS		
P1	XZB8X15A04	Polyethylene Bag (1)
P2 ○	SPP719	Polyethylene Bag (1)
P2 Ⓚ	SPP659	Polyethylene Bag (1)
P3	SPS4089–1	Pad, Left Side (1)
P4	SPS4091–1	Pad, Right Side (1)
P5	SPS4141	Pad, Upper (1)
P6(EF)only	SPG4507	Carton Box (1)
P6(other)	SPG4505	Carton Box (1)
P7 Ⓚ	SGK1413	Label(Black type only) (2)

■ EXPLODED VIEW



■ EXPLODED VIEW



	Description
PARTS	
	Socket, AC Outlet (1)
	Bottom Board Chassis (1)
	Bottom Board Chassis (1)
	Foot (4)
	Terminal (1)
	Shield Plate (1)
	Tapping, ⊕3×8 (3)
	Tapping (Silver) (2)
	Tapping (Black) (2)
	⊕3×6 (4)
	Tapping with Detent, ⊕3×8 (3)
	Tapping, ⊕3×8 (1)
	Tapping, ⊕4×10 (4)
	Tapping, ⊕3×16 (2)
	Tapping, ⊕3×8 (7)
	Tapping with Detent, ⊕3×8 (10)
	Tapping, ⊕3×8 (1)
	Spring, ϕ3 (4)
	Plain, ϕ3 External Tooted Lock, ϕ3 (7) (2)
	Plug Adaptor (1)
	Plug Adaptor (1)
	Instruction Book (1)
	Instruction Book (1)
	Instruction Book (1)
	Instruction Book (1)
	Instruction Book (1)
	Instruction Book (1)
	Instruction Book (1)
	Polyethylene Bag (1)
	Polyethylene Bag (1)
	Polyethylene Bag (1)
	Pad, Left Side (1)
	Pad, Right Side (1)
	Pad, Upper (1)
	Carton Box (1)
	Carton Box (1)
	Label (Black type only) (2)

Printed in Japan
830610500 KS/TN

ORDER NO. SD83062525C8–A

DEUTSCH

Stereo Integrated DC Amplifier SU-Z55/SU-Z55(K)

- This booklet contains the specifications for SU-Z55, written Germany, French and Spanish, and the circuits to be changed according to areas.
- File this manual together with the SU-Z55 service manual (Order No. SD83062525C8).

- Das vorliegende Büchlein enthält die Spezifikationen für SU-Z55 in deutscher, französischer und spanischer Sprache.
- Bewahren Sie das Büchlein zusammen mit der Bedienungsanleitung für SU-Z55 (Bestell-Nr. SD83062525C8) auf.

- Cette brochure contient les spécifications pour le SU-Z55, écrites en allemand, en français et en espagnol.
- Classer ce manuel en même temps qu'avec le manuel de service du SU-Z55 (N° d'ordre : SD83062525C8).

- Este librito contiene la especificaciones para SU-Z55, escritos en alemán, francés y español.
- Guardar este manual juntamente con el manual de servicio de SU-Z55 (Pedido N°. SD83062525C8).

DEUTSCH

■ TECHNISCHE DATEN (Spezifikationen Konnen infolge von Verbesserungen ohne Ankundigung geandert werden.)

(DIN 45 500)

■ VERSTÄRKERTEIL

Dauerton-Ausgangsleistung bei 40 Hz ~ 20 kHz
- **beide Kanäle ausgesteuert** 2 × 45W (4 Ω)
  2 × 40W (8 Ω)

Dauerton-Ausgangsleistung bei 1 kHz
- **beide Kanäle ausgesteuert** 2 × 50W (4 Ω)
  2 × 42W (8 Ω)

Gesamtklirrfaktor
- **Nennleistung bei 40 Hz ~ 20 kHz** 0,05% (4 Ω)
  0,03% (8 Ω)
- **Nennleistung bei 1 kHz** 0,05% (4 Ω)
  0,03% (8 Ω)
- **halbe Nennleistung bei 40 Hz ~ 20 kHz** 0,05% (4 Ω)
  0,03% (8 Ω)
- **halbe Nennleistung bei 1 kHz** 0,007% (4 Ω)
  0,005% (8 Ω)
- **−26 dB Leistung bei 1 kHz** 0,01% (4 Ω)
- **50 mW Leistung bei 1 kHz** 0,01% (4 Ω)

Intermodulationsfaktor
- **Nennleistung bei 250 Hz: 8 kHz = 4:1, 4 Ω** 0,05%
- **Nennleistung bei 60 Hz: 7 kHz = 4:1, nach SMPTE, 8 Ω** 0,03%

Leistungsbandbreite
- **beide Kanäle ausgesteuert bei −3 dB**
  10 Hz ~ 25 kHz (4 Ω)
  10 Hz ~ 25 kHz (8 Ω)

Restbrumm und Geräusch 0,8 mV

Dämpfungsfaktor 20 (4 Ω), 40 (8 Ω)

Eingangsempfindlichkeit und -impedanz
- **Phono** 2,5 mV/47 kΩ
- **TUNER, AUX/CD/VIDEO, TAPE 1, 2** 150 mV/22 kΩ

Maximale TA-Eingangsspannung (1 kHz, eff.) 150 mV

Frequenzgang
- **Phono** RIAA-Standardkurve
  ±0,8 dB (30 Hz ~ 15 kHz)
- **TUNER, AUX/CD/VIDEO, TAPE 1, 2**
  10 Hz ~ 80 kHz (−3 dB)

Geräuschabstand
- **Nennleistung (4 Ω)**
  - **Phono** 75 dB (nach IHF, A: 81 dB)
  - **TUNER, AUX/CD/VIDEO, TAPE 1, 2**
    86 dB (nach IHF, A: 97 dB)
- **−26 dB Leistung (4 Ω)**
  - **Phono** 65 dB
  - **TUNER, AUX/CD/VIDEO, TAPE 1, 2** 65 dB
- **50 mW Leistung (4 Ω)**
  - **Phono** 62 dB
  - **TUNER, AUX/CD/VIDEO, TAPE 1, 2** 62 dB

Klangregler
- **Baßregler (BASS)** 50 Hz, +10 dB ~ −10 dB
- **Höhenregler (TREBLE)** 20 kHz, +10 dB ~ −10 dB

Gehörrichtige Lautstärkekorrektur (Loudness)
- **(bei −30 dB Ausgangsleistung)** 50 Hz, +9 dB

Ausgangsspannung und -impedanz
- **Aufnahmeausgang (REC OUT)** 150 mV

Kanalabweichung (AUX/CD/VIDEO, 250 Hz ~ 6300 Hz) ±1 dB

Übersprechdämpfung (AUX/CD/VIDEO, 1 kHz) 50 dB

Kopfhörerpegel und -impedanz 420 mV/330 Ω

Lautsprecherimpedanz
- **MAIN oder REMOTE** 8 Ω ~ 16 Ω
- **MAIN und REMOTE** 4 Ω ~ 16 Ω

■ ALLGEMEINE DATEN

Leistungsaufnahme 310 W

Netzspannung
- **Für Kontinentaleuropa** Wechselstrom 50 Hz/60 Hz, 220V
- **Für andere Länder** Wechselstrom 50 Hz/60 Hz, 110V/120V/220V/240V

Abmessungen (B×H×T) 430 × 86 × 240 mm

Gewicht 5,1 kg

Bemerkung:
Der Gesamtklirrfaktor wurde mit einem digitalen Rauschspektrometer (Anlage H.P. 3045) gemessen.

FRANÇAIS

■ CARACTERISTIQUES (Sujet a changement sans prearis.)

(DIN 45 500)

■ SECTION AMPLIFICATEUR

Puissance de sortie continue de 40 Hz~20 kHz, les deux canaux en circuit 2 × 45W (4Ω), 2 × 40W (8Ω)

Puissance de sortie continue à 1 kHz les deux canaux en circuit 2 × 50W (4Ω), 2 × 42W (8Ω)

Distorsion harmonique totale
- **à puissance nominale (40 Hz~20 kHz)** 0,05% (4Ω), 0,03% (8Ω)
- **à puissance nominale (1 kHz)** 0,05% (4Ω), 0,03% (8Ω)
- **à demi-puissance (40 Hz~20 kHz)** 0,05% (4Ω), 0,03% (8Ω)
- **à demi-puissance (1 kHz)** 0,007% (4Ω), 0,005% (8Ω)
- **puissance de −26 dB à 1 kHz** 0,01% (4Ω)
- **puissance de 50 mW à 1 kHz** 0,01% (4Ω)

Distorsion d'intermodulation
- **à puissance nominale à 250 Hz: 8 kHz=4:1, 4Ω** 0,05%
- **à puissance nominale à 60 Hz: 7 kHz=4:1, SMPTE, 8Ω** 0,03%

Réponse de fréquences
- **les deux canaux en circuit, −3 dB** 10 Hz~25 kHz (4Ω), 10 Hz~25 kHz (8Ω)

Bruit et ronflement résiduels 0,8 mV

Coefficient d'amortissement 20 (4Ω), 40 (8Ω)

Sensibilité et impédance d'entrée
- **PHONO** 2,5 mV/47kΩ
- **SYNTONISATEUR, AUX/CD/VIDEO, BANDE 1, 2 (TUNER, AUX/CD/VIDEO, TAPE 1, 2)** 150 mV/22kΩ

PHONO (tension d'entrée maximum, 1 kHz RMS) 150 mV

Réponse de fréquence
- **PHONO** Courbe nominale RIAA ±0,8 dB (30 Hz~15 kHz)
- **SYNTONISATEUR, AUX/CD/VIDEO, BANDE 1, 2 (TUNER, AUX/CD/VIDEO, TAPE 1, 2)** 10 Hz~80 kHz (−3 dB)

Réglage de la tonalité
- **BASSES (BASS)** 50 Hz, +10 dB~ −10 dB
- **AIGUS (TREBLE)** 20 kHz, +10 dB~ −10 dB

Compensateur physiologique (volume à −30 dB) 50 Hz, +9 dB

Signal/Bruit
- **à puissance nominale (4Ω)**
  - **PHONO** 75 dB (IHF, A: 81 dB)
  - **SYNTONISATEUR, AUX/CD/VIDEO, BANDE 1, 2 (TUNER, AUX/CD/VIDEO, TAPE 1, 2)** 86 dB (IHF, A: 97 dB)
- **puissance de −26 dB (4Ω)**
  - **PHONO** 65 dB
  - **SYNTONISATEUR, AUX/CD/VIDEO, BANDE 1, 2 (TUNER, AUX/CD/VIDEO, TAPE 1, 2)** 65 dB
- **puissance de 50 mW (4Ω)**
  - **PHONO** 62 dB
  - **SYNTONISATEUR, AUX/CD/VIDEO, BANDE 1, 2 (TUNER, AUX/CD/VIDEO, TAPE 1, 2)** 62 dB

Tension de sortie et impédance
- **SORTIE ENREGISTREMENT (REC OUT)** 150 mV

Equilibrage des canaux, AUX/CD/VIDEO 250 Hz~6 300 Hz ±1 dB

Séparation des canaux, AUX/CD/VIDEO 1 kHz 50 dB

Niveau de sortie des casques et impédance 420 mV/330Ω

Impédance de charge
- **PRINCIPALE ou AUXILIAIRE (MAIN or REMOTE)** 8Ω~16Ω
- **PRINCIPALE et AUXILIAIRE (MAIN and REMOTE)** 4Ω~16Ω

■ DIVERS

Consommation 310W

Alimentation
- **Pour l'Europe** CA 50 Hz/60 Hz, 220V
- **Autres** CA 50 Hz/60 Hz, 110V/120V/220V/240V

Dimensions (L×H×Pr) 430 × 86 × 240 mm

Poids 5,1 kg

Nota:
La Société NATIONAL-PANASONIC-FRANCE, importateur du matériel MATSUSHITA-ELECTRIC déclare que cet appareil est conforme aux prescriptions de la directive 76/889/C.E.E. (arrêté 14 Janvier 1980).

Remarque:
On mesure la distorsion harmonique totale au moyen d'un analyseur de spectre digital (Système H.P. 3045).

ESPAÑOL

■ ESPECIFICACIONES (Estas especificaciones estan sujetas a cualquier cambio sin previo eviso.)

(DIN 45 500)

■ SECCION AMPLIFICADOR

Potencia continua de 40 Hz~20 kHz
en ambos canales 2 × 45W (4Ω)
2 × 40W (8Ω)

Potencia continua de 1 kHz
en ambos canales 2 × 50W (4Ω)
2 × 42W (8Ω)

Distorsión armónica total
potencia de régimen a 40 Hz~20 kHz 0,05% (4Ω)
0,03% (8Ω)
potencia de régimen a 1 kHz 0,05% (4Ω)
0,03% (8Ω)
mitad de potencia a 40 Hz~20 kHz 0,05% (4Ω)
0,03% (8Ω)
mitad de potencia a 1 kHz 0,007% (4Ω)
0,005% (8Ω)
−26 dB de potencia a 1 kHz 0,01% (4Ω)
50 mW de potencia a 1 kHz 0,01% (4Ω)

Distorsión por intermodulación
potencia de régimen a 250 Hz: 8 kHz=4:1, 4Ω 0,05%
potencia de régimen a 60 Hz: 7 kHz=4:1, SMPTE, 8Ω 0,03%

Ancho de banda de potencia
con ambos canales, −3 dB 10 Hz~25 kHz (4Ω)
10 Hz~25 kHz (8Ω)

Zumbido residual y ruido 0,8 mV
Factor de amortiguamiento 20 (4Ω), 40 (8Ω)

Sensibilidad e impedancia de entrada
TOCADISC. (PHONO) 2,5 mV/47kΩ
SINTON., AUX./CD/VIDEO, GRAB. 1, 2
(TUNER, AUX/CD/VIDEO, TAPE 1, 2) 150 mV/22kΩ

Voltaje máximo de entrada de PHONO (1 kHz, RMS) 150 mV

Respuesta de frecuencia
TOCADISC. (PHONO) curva RIAA estándar
±0,8 dB (30 Hz~15 kHz)
SINTON., AUX./CD/VIDEO, GRAB. 1, 2
(TUNER, AUX/CD/VIDEO, TAPE 1, 2)
10 Hz~80 kHz (−3 dB)

Relación de señal a ruido
potencia de régimen (4Ω)
TOCADISC. (PHONO) 75 dB (IHF, A: 81 dB)
SINTON., AUX./CD/VIDEO, GRAB. 1, 2
(TUNER, AUX/CD/VIDEO, TAPE 1, 2)
86 dB (IHF, A: 97 dB)
−26 dB de potencia (4Ω)
TOCADISC. (PHONO) 65 dB
SINTON., AUX./CD/VIDEO, GRAB. 1, 2
(TUNER, AUX/CD/VIDEO, TAPE 1, 2) 65 dB
50 mW de potencia (4Ω)
TOCADISC. (PHONO) 62 dB
SINTON., AUX./CD/VIDEO, GRAB. 1, 2
(TUNER, AUX/CD/VIDEO, TAPE 1, 2) 62 dB

Controles de tono
BAJOS (BASS) 50 Hz, +10 dB~ −10 dB
AGUDOS (TREBLE) 20 kHz, +10 dB~ −10 dB

Control de sonoridad (volumen a −30 dB) 50 Hz, +9 dB

Voltaje e impedancia de salida
SAL. GRAB. (REC OUT) 150 mV

Equilibrio de canales, AUX/CD/VIDEO 250 Hz~6300 Hz ±1 dB

Separación de canales, AUX/CD/VIDEO 1 kHz 50 dB

Impedancia y nivel de salida de los auriculares 420 mV/330Ω

Impedancia de carga
MAIN o REMOTE 8Ω~16Ω
MAIN y REMOTE 4Ω~16Ω

■ GENERAL

Consumo de energía 310W

Alimentación de energía
Para Europa continental CA 50 Hz/60 Hz, 220V
Para otros países CA 50 Hz/60 Hz, 110V/120V/220V/240V

Dimensiones (An.×Al.×Prof.) 430 × 86 × 240 mm

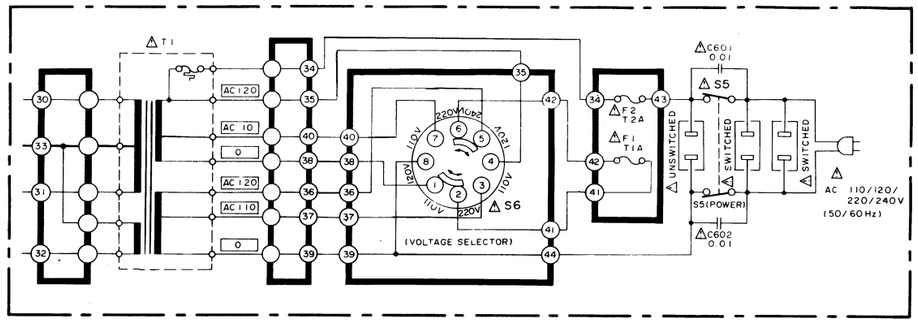
Peso 5,1 kg

Nota:
La distorsión armónica total se mide con el analizador de espectro digital (sistema H.P. 3045).

■ CIRCUITS TO BE CHANGED AND THE AREAS

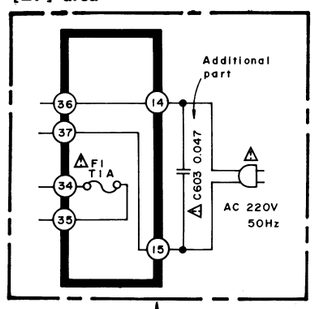
- **Power source circuit**

[XA] area

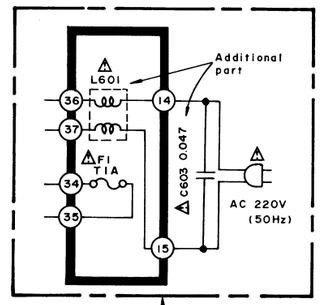


[XA] is available in Southeast Asia, Oceania, Africa, Middle Near East and Central South America.

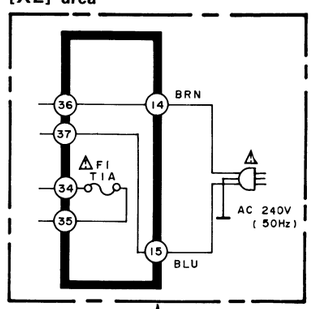
[EF] area



[EGA] area

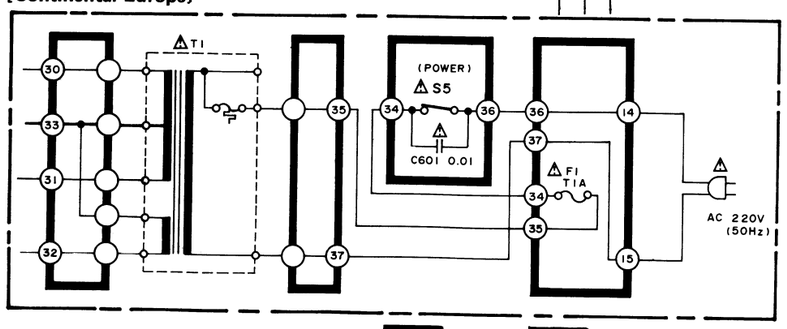


[XL] area



[EF] is available in France.
[EGA] is available in F. R. Germany.
[XL] is available in Australia.

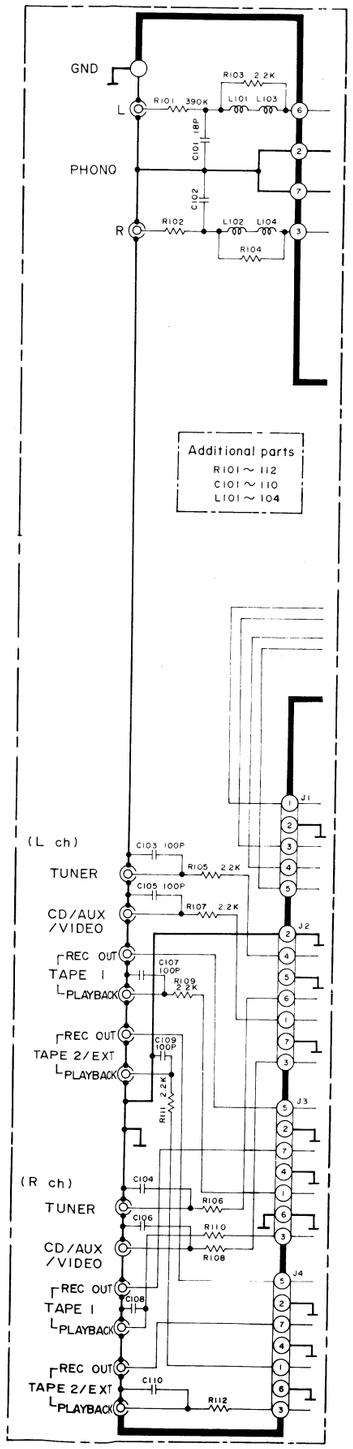
[Continental Europe]

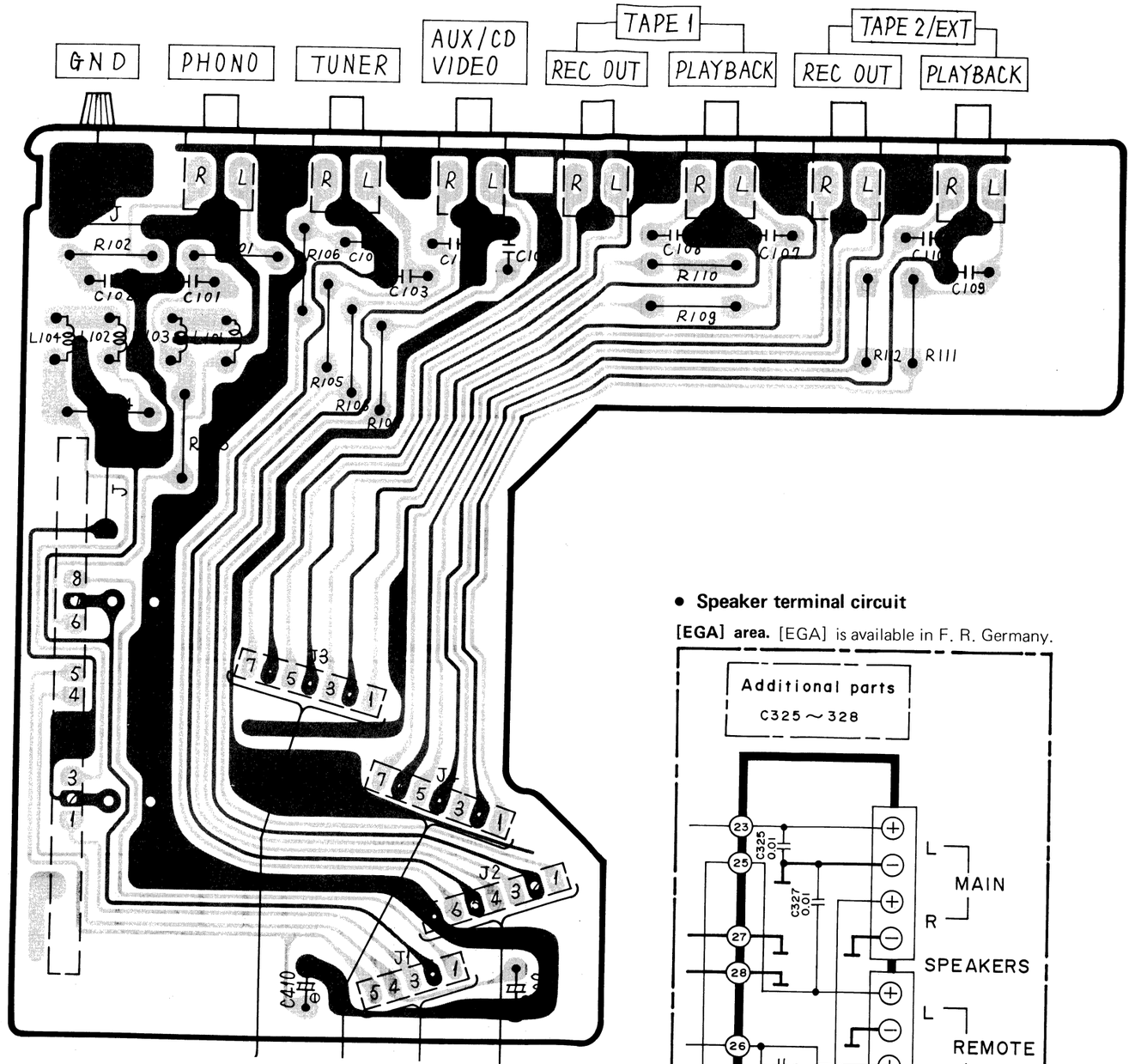


J **K**

- **Input/output terminal circuit**

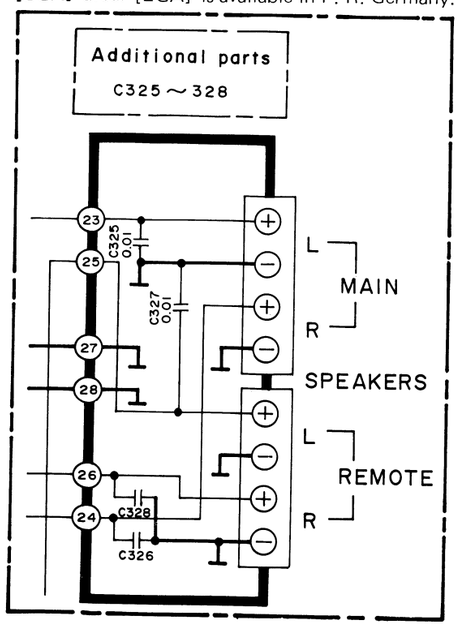
[EGA] area

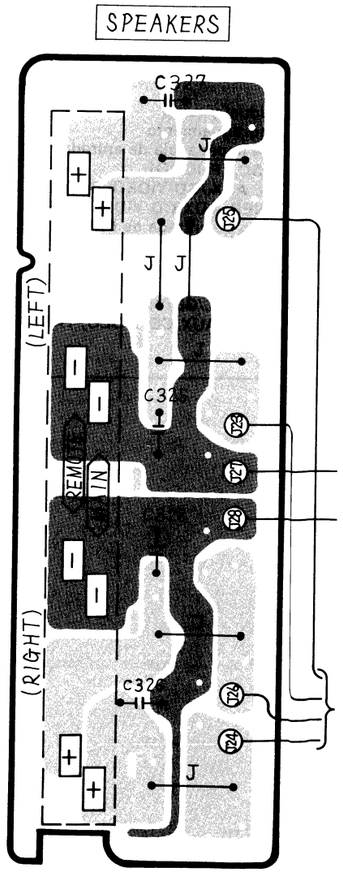




- **Speaker terminal circuit**

[EGA] area. [EGA] is available in F. R. Germany.





Printed in Japan
8306 09100 Ⓝ KS

ORDER NO. SD83072592S8

Service Manual

Supplement

Stereo Integrated Amplifier

SU-Z55

[E], [EGA], [EK], [EF], [EH], [EB], [Ei], [XA], [XL], [PC]

SU-Z55(K)

[E], [EGA], [EK], [EH], [EB], [XA], [PC]

Please use this manual together with the service manual for Model No. SU-Z55, Order No. SD83062525C8

CORRECTION

1. The product name was wrong.
2. The correct voltage of IC1, IC501 and IC502 refers to the page 2.
3. The positive (+B) voltage linesand negative (—B) voltage lines of schematic diagram was wrong.
4. The correct part of parts list refer to the page 2.
5. We will send the schematic diagram on which the correct voltage is shown.
6. The correct parts of power amplifier protection refer to the supplement last page.

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

SU-Z55

1. The product name is the correction.

Stereo Integrated DC Amplifier → (correction) → Stereo Integrated Amplifier

2. The correct voltage values in the schematic diagram.

Pin	Voltage	Pin	Voltage
1	0V	5	0V
2	0V	6	0V
3	0V	7	0V
4	**15.5V**	**8**	**−16.0V**

IC1
SVINJM2043DD
EQUALIZER
→ correction →

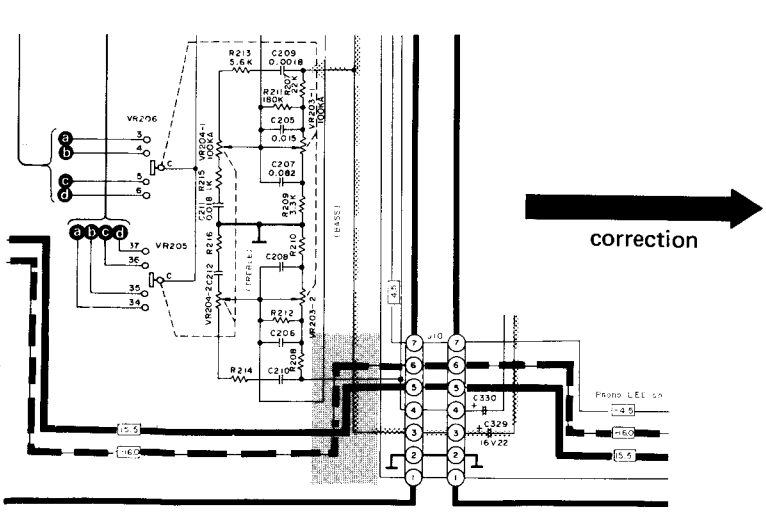
Pin	Voltage	Pin	Voltage
1	0V	5	0V
2	0V	6	0V
3	0V	7	0V
4	**−16.0V**	**8**	**15.5V**

Pin	Voltage	Pin	Voltage
1	0V	9	−0.1V
2	0V	10	−0.1V
3	−0.1V	11	−0.1V
4	−0.1V	12	−0.1V
5	−0.1V	13	−0.1V
6	−0.1V	14	−0.1V
7	−0.1V	**15**	**−13.0V**
8	−0.1V	16	0V

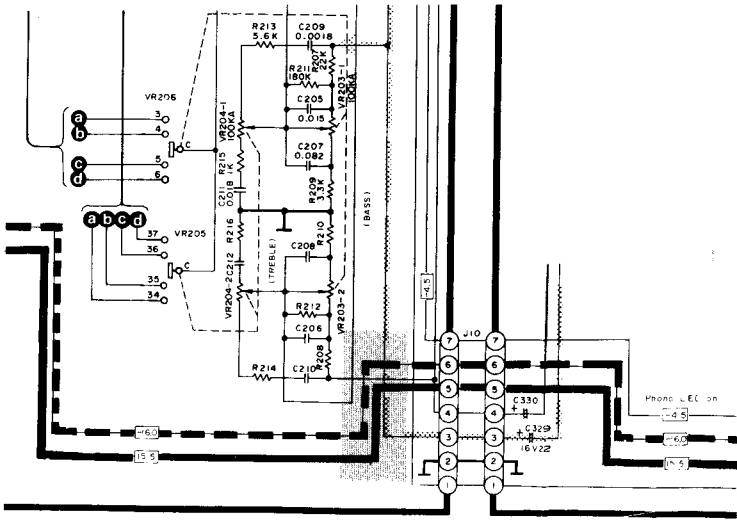
IC501, 502
SVIBA6148
Rch, Lch FL DRIVER
(COMPARATOR)
→ correction →

Pin	Voltage	Pin	Voltage
1	0V	9	−0.1V
2	0V	10	−0.1V
3	−0.1V	11	−0.1V
4	−0.1V	12	−0.1V
5	−0.1V	13	−0.1V
6	−0.1V	14	−0.1V
7	−0.1V	**15**	**13.0V**
8	−0.1V	16	0V

3. The positive (+B) voltage lines and negative (−B) voltage lines change the parts.

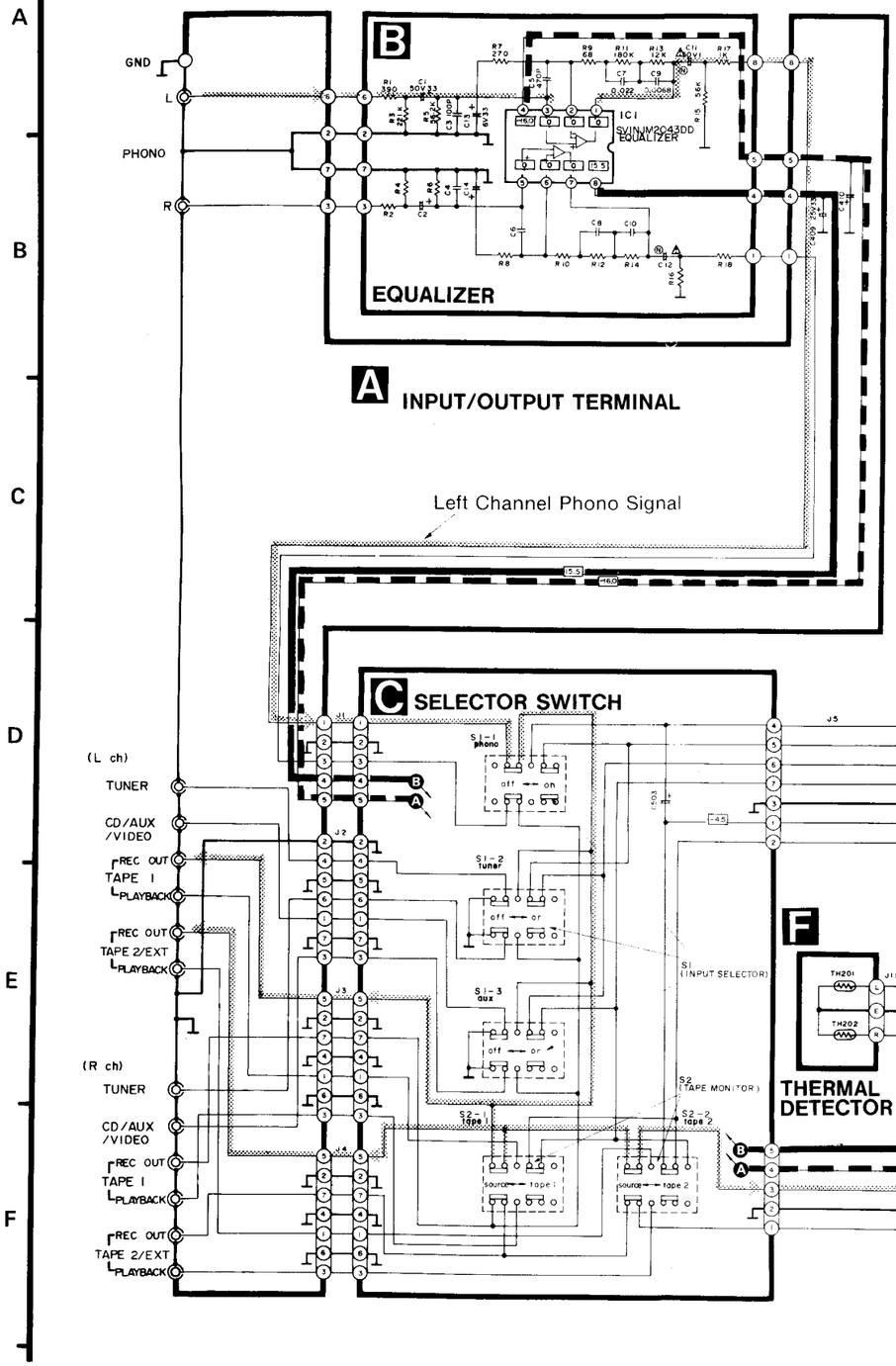


correction



4. Parts change note.

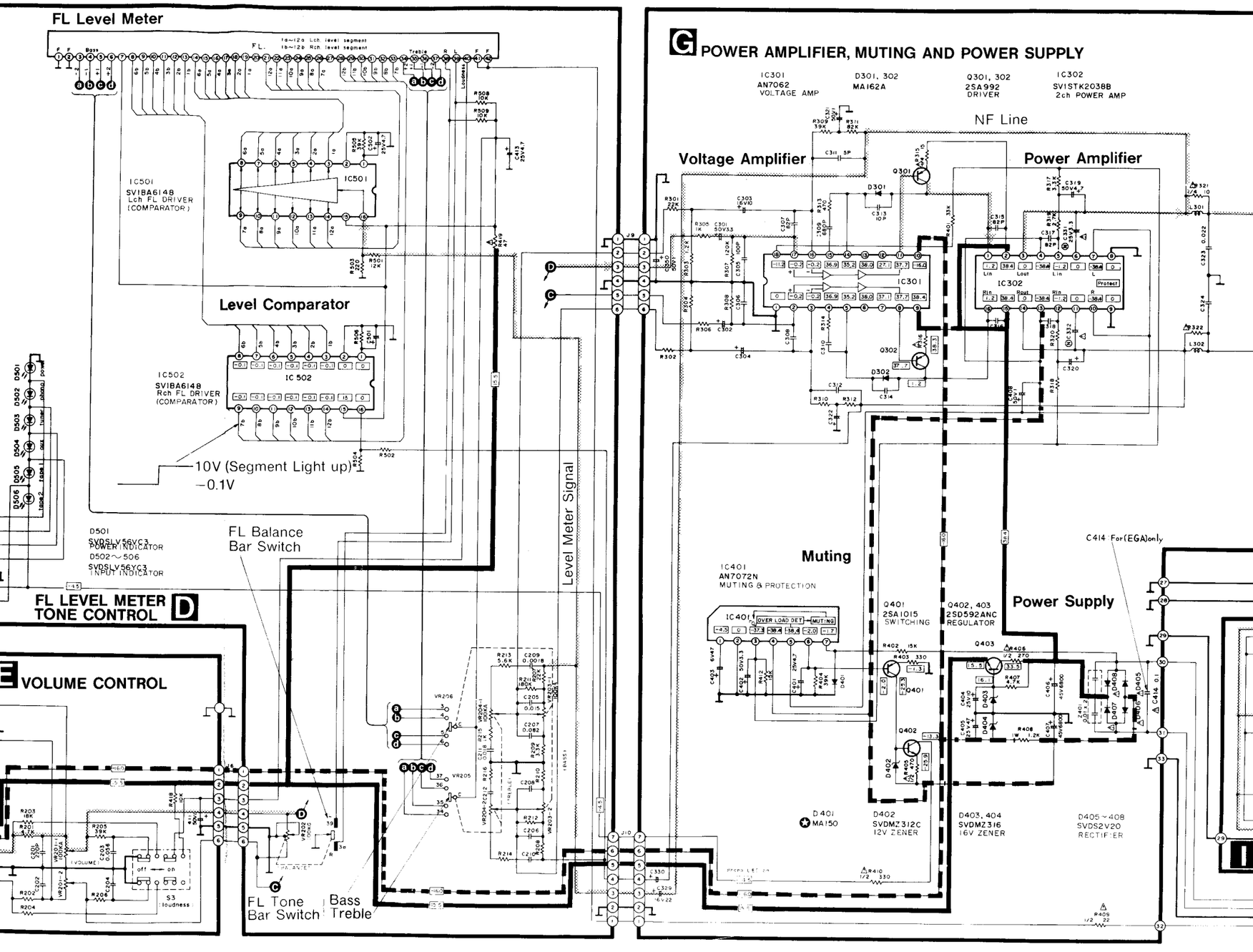
Ref. No.	Correction of Parts No.		Part Name & Description	Pcs/Set	Remarks
CABINET and CHASSIS PART					
2	**Wrong**	**Correction**	Transparent Cover	1	
	SGUUZ55−E →	SGUUZ55−SE			


GND
L
PHONO
R
B
EQUALIZER
A INPUT/OUTPUT TERMINAL
Left Channel Phono Signal
C SELECTOR SWITCH
(L ch)
TUNER
CD/AUX /VIDEO
REC OUT TAPE 1 PLAYBACK
REC OUT TAPE 2/EXT PLAYBACK
(R ch)
TUNER
CD/AUX /VIDEO
REC OUT TAPE 1 PLAYBACK
REC OUT TAPE 2/EXT PLAYBACK
S1 (INPUT SELECTOR)
S2 (TAPE MONITOR)
S3 loudness
F
THERMAL DETECTOR
E VOLUME CONTROL
FL Level Meter
IC501
SVIBA6148
Lch FL DRIVER
(COMPARATOR)
Level Comparator
IC502
SVIBA6148
Rch FL DRIVER
(COMPARATOR)
10V (Segment Light up)
−0.1V
D501
SVDSLV56YC3
POWER INDICATOR
D502～506
SVDSLV56YC3
INPUT INDICATOR
FL LEVEL METER TONE CONTROL D
FL Balance Bar Switch
FL Tone Bar Switch
Bass
Treble
Level Meter Signal
G POWER AMPLIFIER, MUTING AND POWER SUPPLY
IC301
AN7062
VOLTAGE AMP
D301, 302
MA162A
Q301, 302
2SA992
DRIVER
IC302
SVISTK2038B
2ch POWER AMP
NF Line
Voltage Amplifier
Power Amplifier
Muting
IC401
AN7072N
MUTING & PROTECTION
Power Supply
Q401
2SA1015
SWITCHING
Q402, 403
2SD592ANC
REGULATOR
D401
MA150
D402
SVDMZ312C
12V ZENER
D403, 404
SVDMZ316
16V ZENER
D405～408
SVDS2V20
RECTIFIER

5 6 7 8 9 10 11 12

■ SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology.)



* The part No. of transistors, IC and diodes mentioned in the schematic diagram stand for production part No. Regarding the part No. with ✪ mark, the production part No. are different from the replacement part No. Therefore, when placing an order for replacement part, please use the part No. in the replacement parts list.

Notes:

1. This is basic circuit diagram (For continental Europe) of this unit.
2. Regarding the circuits to be changed in the basic circuit diagram (For continental Europe) and related areas ([EGA], [XL], [XA]) and [PC] refer to the booklet contain manual (Order No. SD83062525C8–A).
3. **S1–1 ～ S1–3** : Input selector switch in **"phono"** position. (S1–1 : phono, S1–2 : tuner, S1–3 : Aux/CD/Video)
4. **S2–1 ～ S2–2** : Tape-monitor selector switch in **"source"** position. (S2–1 : tape 1, S2–2 : tape 2)
5. **S3** : Loudness switch in **"off"** position.
6. **S4–1 ～ S4–2** : Speaker switch (main) in **"on"** position. Speaker switch (remote) in **"off"** position. (S4–1 : main speaker, S4–2 : remote speaker).
7. **S5** : Power source switch in **"on"** position.
8. **S6 ([XA] and [PC] area only)** : Voltage selector switch in **"240V"** position. (Refer to booklet contain) 120V ⟷ 110V ⟷ 220V ⟷ 240V
9. ▭ Indicated voltage values are the standard values for the DC electronic circuit tester (high impedance) with the ground point taken as standard. Therefore, there may exist some errors in the voltage volues, depending on the internal impedance of the DC circuit tester.
10. Important safety notice: Components identified by △ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
11. ⋯⋯ Phono signal lines of left channel.
12. ⋯⋯ NF Signal lines of left channel.
13. ——▶ Positive (+B) voltage line.
14. – – ▶ Negative (−B) voltage line.

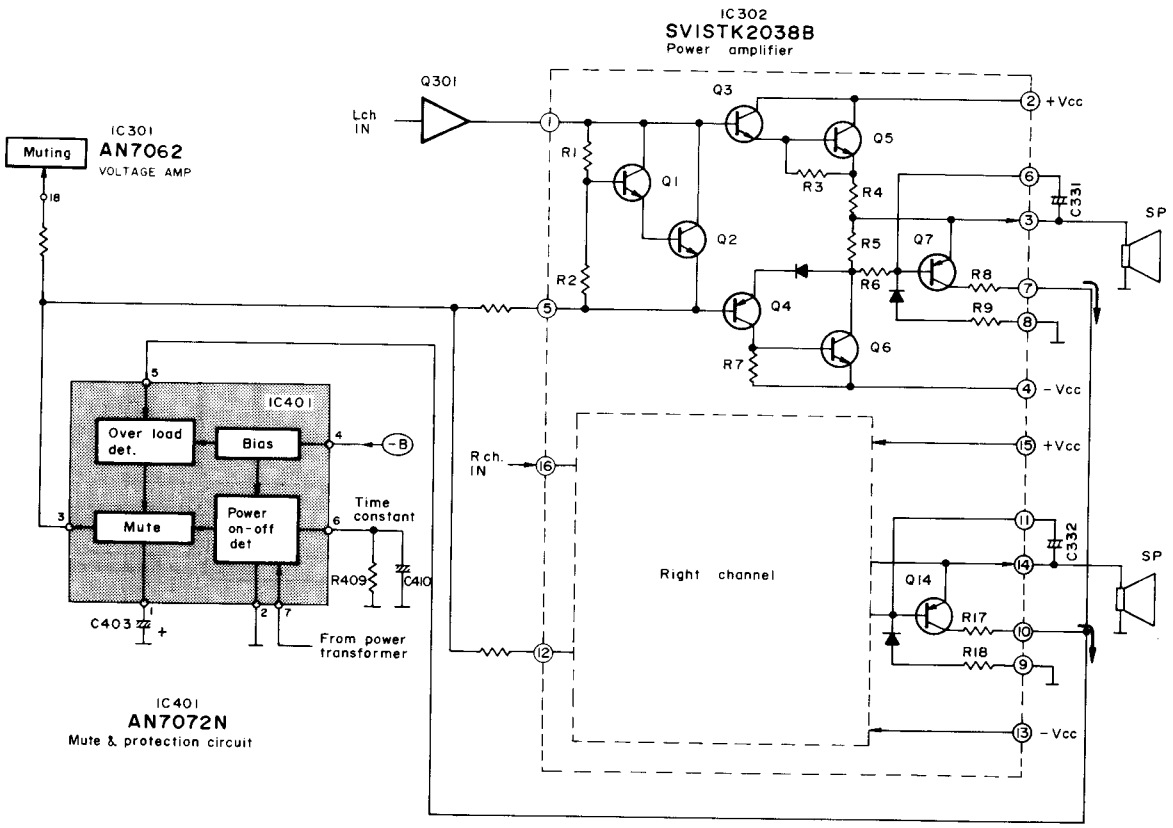
6. The correct parts of power amplifier protection.

■ POWER AMPLIFIER PROTECTION

• Short-circuit of speaker terminals

1. If speaker terminals are short-circuited, a high level current will flow to power amplifiers Q5 and Q6, causing the voltage across emitter resistor R5 to increase.
2. Voltage across R5 causes overload detecting transistor Q7 to turn ON.
3. Emitter voltage of Q7 (ground potential) goes to terminal (7) of IC302 through R8.
4. Voltage at terminal (7) is transmitted to terminal (5) of muting IC (IC401).
5. Calculation circuit of IC401 operates to eliminate the voltage at terminal (3) of IC401.
6. On operation of muting circuit of IC301, the drive circuit of IC302 stops operating and the current from power amplifier also stops.

Note:
1. Terminal (3) of IC401 supplies power to drive circuit of power amplifeir IC302, and supplies control voltage to muting circuit of voltage amplifier IC301.
2. IC401 is provided with muting function to prevent shock noise during power ON/OFF in addition to power amplifier protection.



Printed in Japan
830610000 (N) KS